

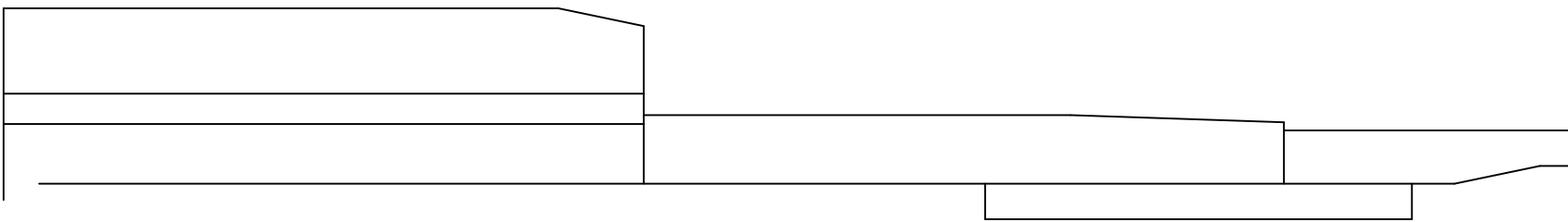
CELL	DESCRIPTION	GROUP
P00001	Bridge approach slab elevation	Full scale objects
P00002	Integral abutment drainage elevation	Full scale objects
P00003	Steel plate beam guardrail section	Full scale objects
P00004	Steel sheet piling	Full scale objects
P00005	Type 5 traffic barrier terminal elevation	Full scale objects
P00006	Type 5 traffic barrier terminal plan, Rt.	Full scale objects
P00007	Type 6 traffic barrier terminal elevation	Full scale objects
P00008	Type 6 traffic barrier terminal plan, Rt.	Full scale objects
P00020	Curve data	Information
P00021	Design Specifications	Information
P00022	Design stresses	Information
P00023	Highway classification	Information
P00024	Loading	Information
P00025	Seismic Data	Information
P00030	Design scour elevation table	Information
P00031	Location sketch	Information
P00032	Waterway information table, bridge and culvert	Information
P00033	Waterway information table, bridge and overflow	Information
P00034	Waterway information table, bridge, large	Information
P00040	Section thru integral abutment for PPC beams	Abutment sections
P00041	Section thru integral abutment for steel beams or girders	Abutment sections
P00042	Section thru pile supported stub abutment for PPC beams	Abutment sections
P00043	Section thru pile supported stub abutment for steel beams or girders	Abutment sections
P00044	Section thru semi-integral abutment for PPC beams	Abutment sections
P00045	Section thru semi-integral abutment for steel beams or girders	Abutment sections
P00046	Riprap for section thru abutment	Slope treatment for abut sect.
P00047	Sloped wall for section thru abutments	Slope treatment for abut sect.
P00048	Section Thru Filled Vaulted Abutment	Abutment sections
P00050	Toe stone riprap treatment for stream crossings	Slope treatment
P00051	Flank stone riprap treatment for stream crossings	Slope treatment
P00052	Section thru bituminous coated aggregate sloped wall	Slope treatment
P00053	Section at edge of bituminous coated aggregate sloped wall	Slope treatment
P00054	Section thru concrete sloped wall (from stub abutment)	Slope treatment

CELL	DESCRIPTION	GROUP
P00055	Section thru concrete slopewall (from integral abutment)	Slope treatment
P00056	Section at edge of concrete slopewall	Slope treatment
P00060	Railing end treatment elevation for type 5 terminal and aluminum railing	Special rail treatment
P00061	Railing end treatment elevation for type 6 terminal and aluminum railing	Special rail treatment
P00062	Railing end treatment section for type 5 terminal and aluminum railing	Special rail treatment
P00063	Railing end treatment section for type 6 terminal	Special rail treatment
P00064	Railing end treatment elevation for type 6 terminal and bridge fence or parapet railing	Special rail treatment
P00070	MSE wall with CIP coping section	Walls
P00071	Soldier pile wall with concrete facing section	Walls
P00077	Multiple round column grade separation pier sketch (3)	Piers
P00078	Multiple round column grade separation pier sketch (4)	Piers
P00079	Multiple round column grade separation pier sketch (5)	Piers
P00080	Solid, spread footing pier sketch	Piers
P00081	Solid, battered, spread footing pier sketch	Piers
P00082	Solid, with cap and spread footing pier sketch	Piers
P00083	Single hammerhead pier sketch	Piers
P00084	Double hammerhead pier sketch	Piers
P00085	2 column pier sketch	Piers
P00086	3 column pier sketch	Piers
P00087	4 column pier sketch	Piers
P00088	2 column trapezoidal pier sketch	Piers
P00089	Solid hammerhead pier sketch	Piers
P00090	2 column trapezoidal pier with spread footing sketch	Piers
P00091	3 column trapezoidal pier with spread footing sketch	Piers
P00092	4 column trapezoidal pier with spread footing sketch	Piers
P00093	5 column trapezoidal pier with spread footing sketch	Piers
P00094	2 bay railroad pier with round columns sketch	Piers
P00095	3 bay railroad pier with round columns sketch	Piers
P00096	4 bay railroad pier with round columns, modified, sketch	Piers
P00097	5 bay railroad pier with round columns sketch	Piers
P00098	Encased pile bent pier sketch	Piers
P00099	Pile bent pier sketch	Piers
P00100	Individually encased pile bent pier sketch	Piers

CELL	DESCRIPTION	GROUP
P00110	Safety walk and parapet removal details	Retrofit
P00111	Parapet retrofit detail	Retrofit

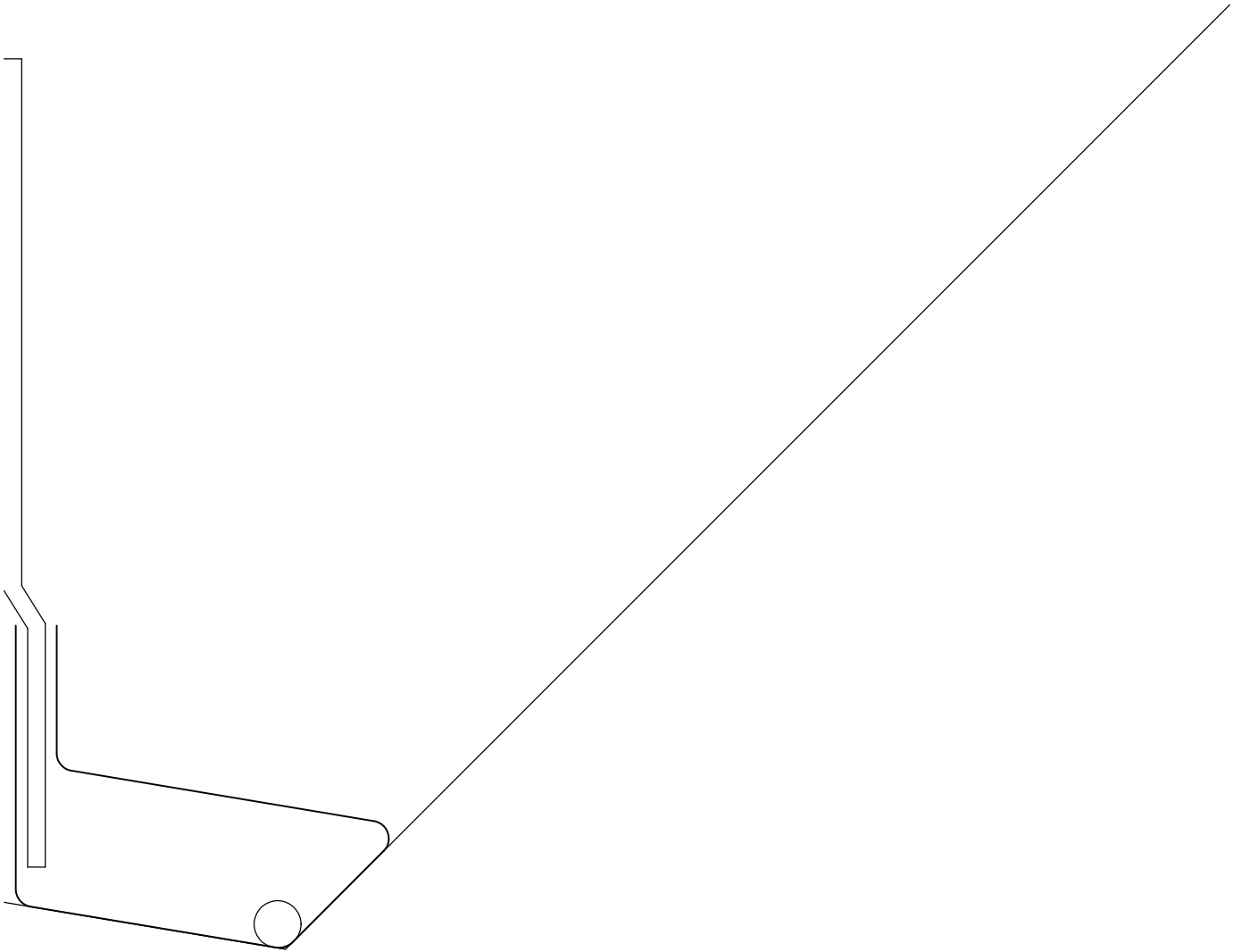
*Cell Name: P00001*

*Descrip: Bridge approach slab elevation*



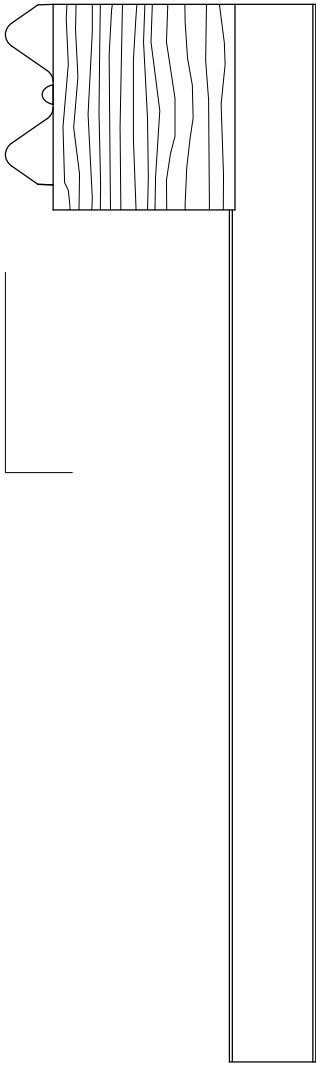
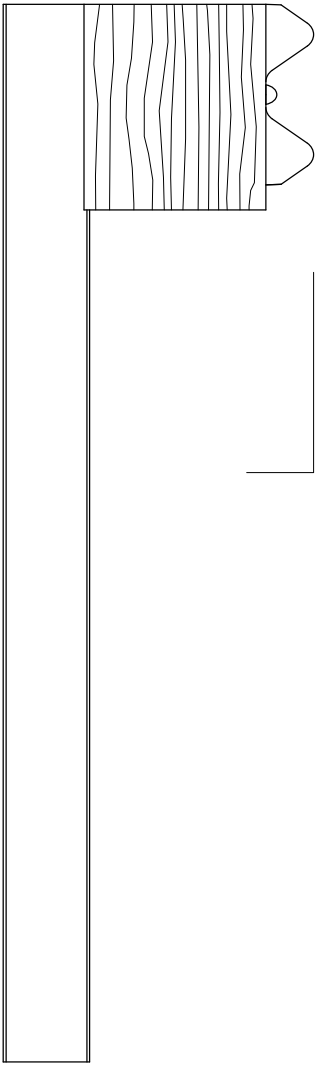
Cell Name: P00002

Descrip: Integral abutment drainage elevation

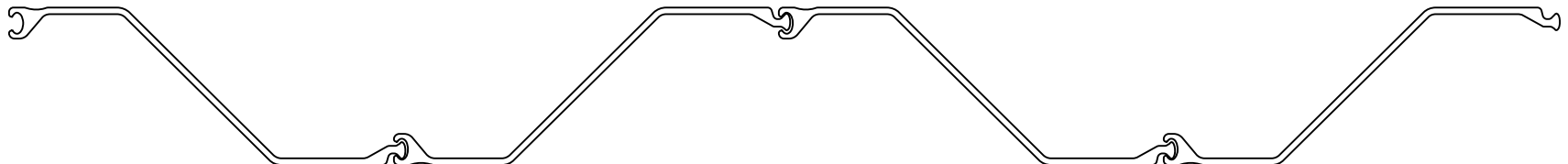


Cell Name: P00003

Descrip: Steel plate beam guardrail section

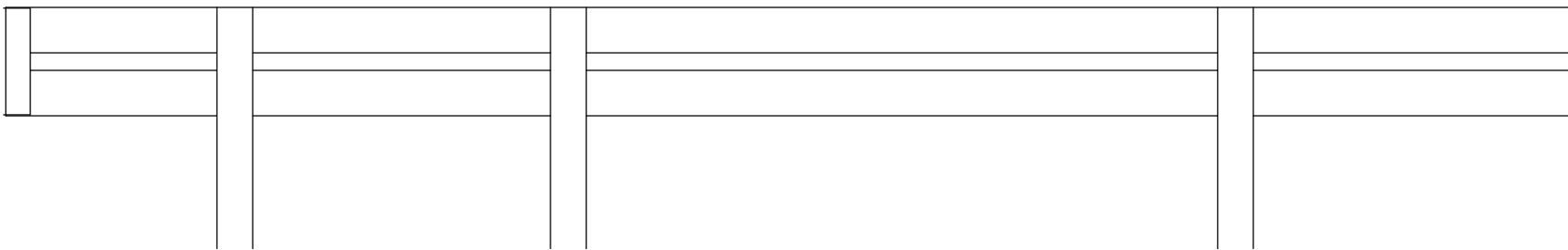


*Cell Name: P00004*  
*Descrip: Steel sheet piling*



*Cell Name: P00005*

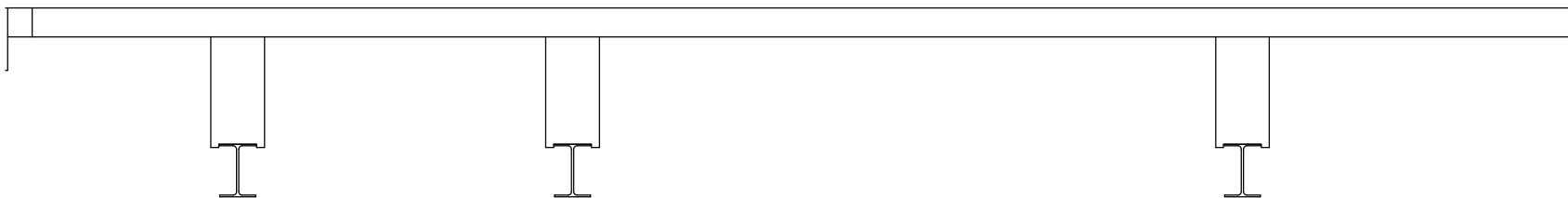
*Descrip: Type 5 traffic barrier terminal elevation*





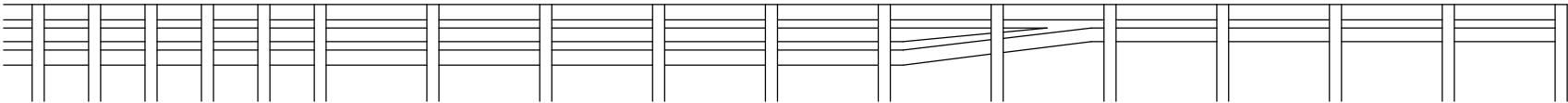
*Cell Name: P00006*

*Descrip: Type 5 traffic barrier terminal plan, Rt*



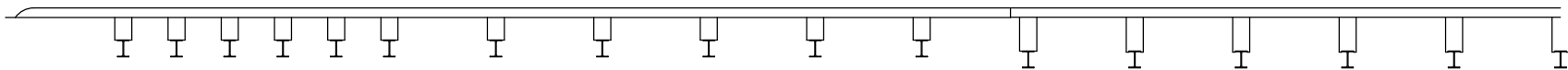
Cell Name: P00007

Descrip: Type 6 traffic barrier terminal elevation



*Cell Name: P00008*

*Descrip: Type 6 traffic barrier terminal plan, Rt.*



Cell Name: P00020  
Descrip: Curve data

CURVE DATA

P.I. Sta. =

$\Delta$  =

D =

R =

T =

L =

E =

e =

T.R. =

S.E. Run =

P.C. Sta. =

P.T. Sta. =

*Cell Name: P00021*

*Descrip: Design Specifications*

# *DESIGN SPECIFICATIONS*

*2014 AASHTO LRFD Bridge Design  
Specifications, 7th Edition with 2015 Interims*

Cell Name: P00022

Descrip: Design stresses

# DESIGN STRESSES

## FIELD UNITS

$$f'_c = 3,500 \text{ psi}$$

$$f_y = 60,000 \text{ psi (Reinforcement)}$$

$$f_y = 50,000 \text{ psi (M270 Grade 50)}$$

# HIGHWAY CLASSIFICATION

Rte.                      -                      Rte.

Functional Class:

ADT:                      (20    );                      (20    )

ADTT:                      (20    );                      (20    )

DHV:

Design Speed:            m.p.h.

Posted Speed:            m.p.h.

-Way Traffic

Directional Distribution:

Cell Name: P00024  
Descrip: Loading

## LOADING HL-93

*Allow 50#/sq. ft. for future wearing surface.*



Cell Name: P00025

Descrip: Seismic Data

## SEISMIC DATA

Seismic Performance Zone (SPZ) =

Design Spectral Acceleration at 1.0 sec. (SD1) =

Design Spectral Acceleration at 0.2 sec. (SDS) =

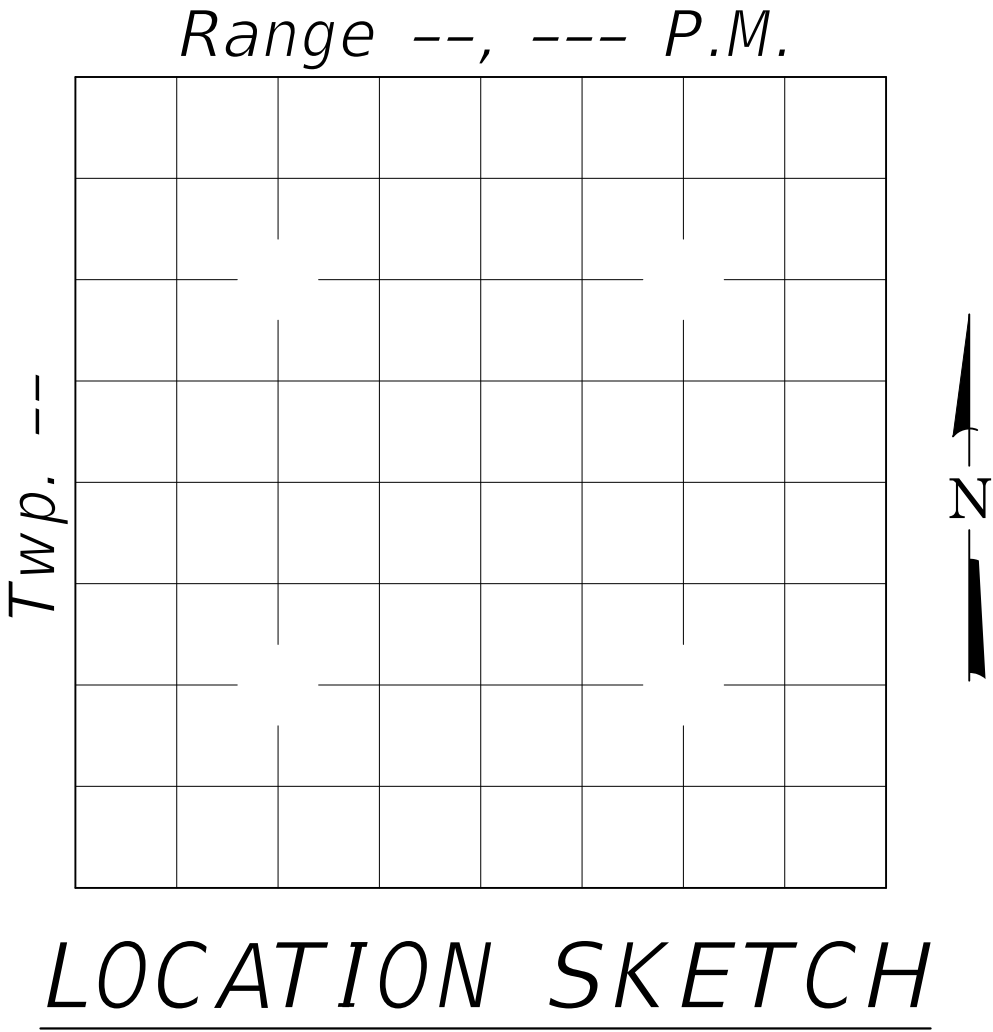
Soil Site Class =

Cell Name: P00030  
Descrip: Design scour elevation table

DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft.)				
	-. Abut.	Pier -	Pier -	-. Abut.	Item 113
Q100					
Q200					
Design					
Check					

Cell Name: P00031  
Descrip: Location sketch



Cell Name: P00032  
Descrip: Waterway information table, bridge and culvert

WATERWAY INFORMATION

Drainage Area = -			Low Grade Elev. - @ Sta. -						
Flood	Freq. Yr.	Q C.F.S.	Opening Ft²		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	10								
Design									
Base	100								
Overtopping									
Max. Calc.	500								

Cell Name: P00033  
Descrip: Waterway information table, bridge and overflow

WATERWAY INFORMATION

Drainage Area = -			Low Grade Elev. - @ Sta. -							
Flood		Freq. Yr.	Q C.F.S.	Opening Ft²		Nat. H.W.E.	Head - Ft.		Headwater El.	
				Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
		10								
Design	Main Channel									
	Overflow									
	Total									
Base	Main Channel	100								
	Overflow									
	Total									
Maximum or Over- topping	Main Channel									
	Overflow									
	Total									

Cell Name: P00034

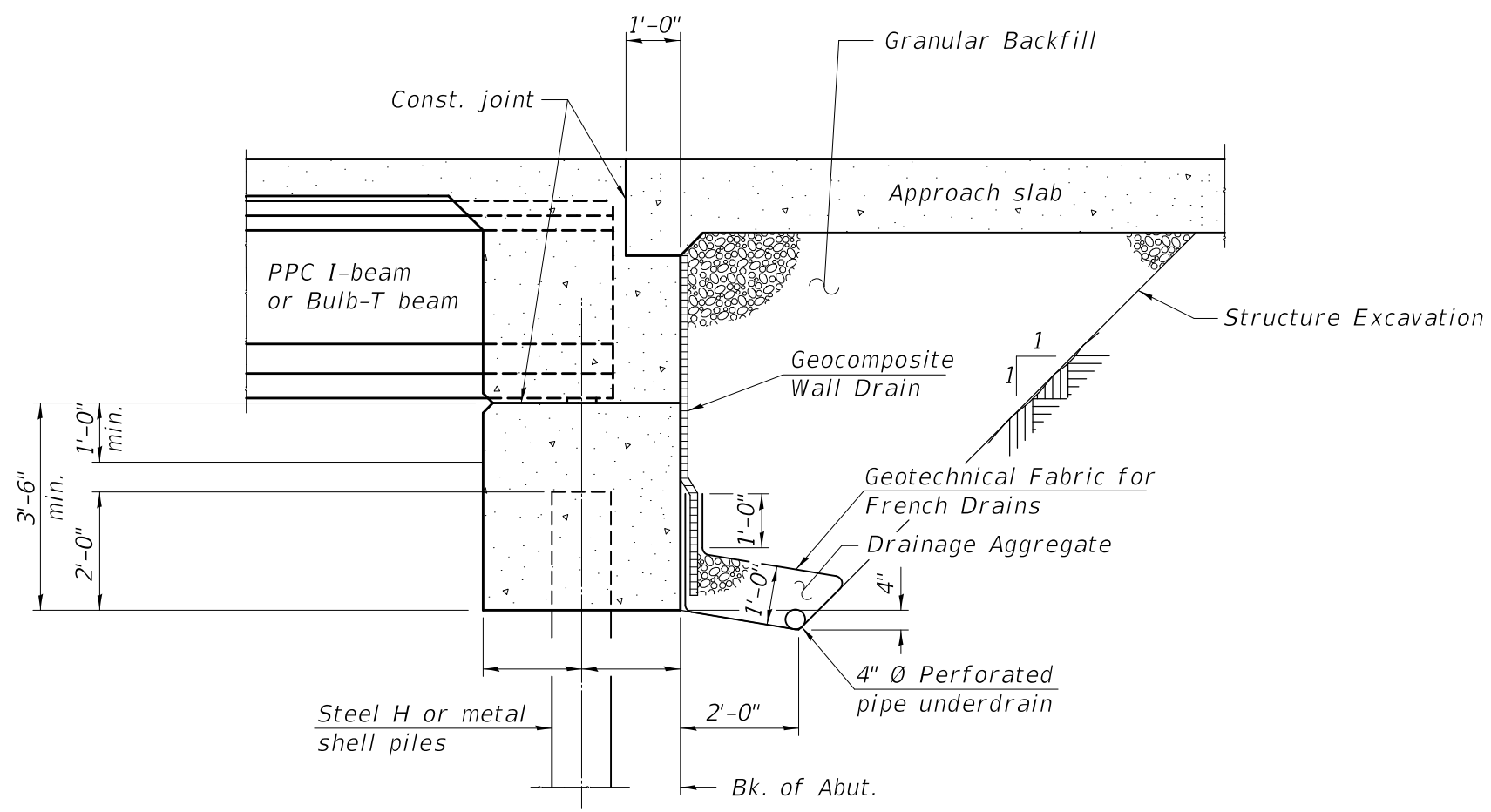
Descrip: Waterway information table, bridge, large

WATERWAY INFORMATION

Drainage Area = -				Low Grade Elev. - @ Sta. -						
Flood		Freq. Yr.	Q C.F.S.	Opening Ft <sup>2</sup>		Nat. H.W.E.	Head - Ft.		Headwater El.	
				Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design										
Base										
Overtopping										

Cell Name: P00040

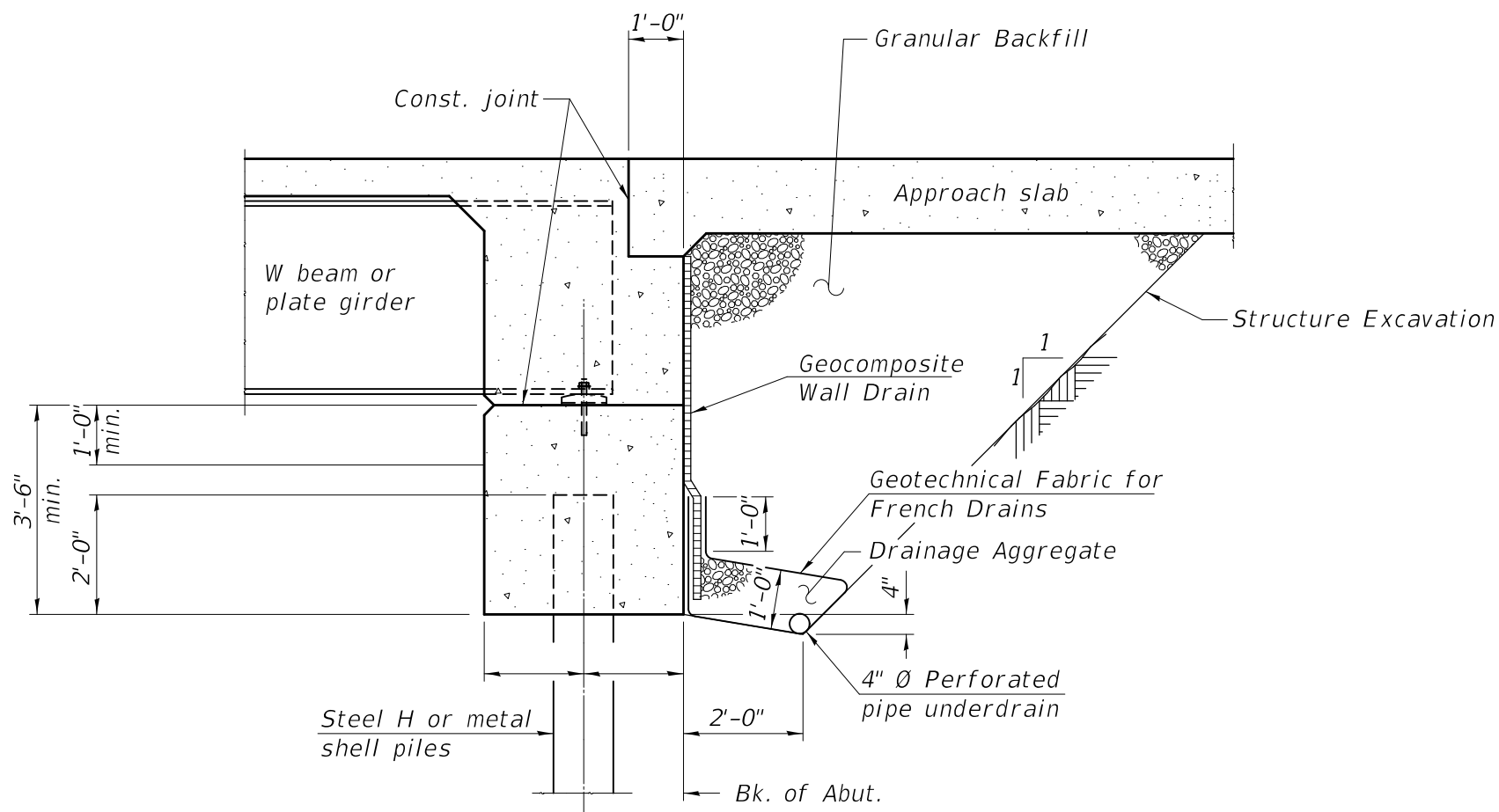
Descrip: Section thru integral abutment for PPC beams



SECTION THRU INTEGRAL ABUTMENT  
(Horiz. dim. @ Rt. L's)

Cell Name: P00041

Descrip: Section thru integral abutment for steel beams or girders



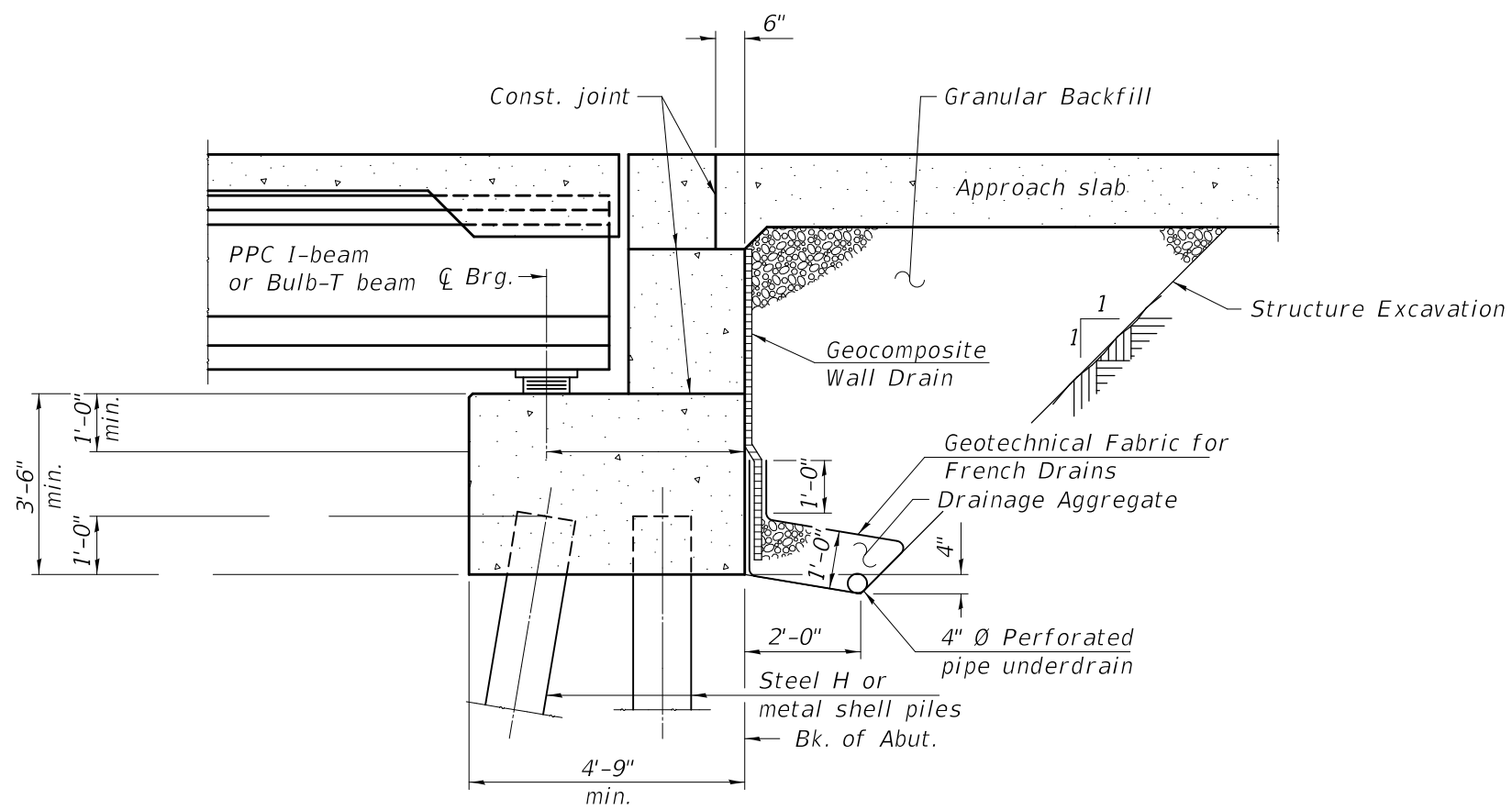
SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)



Cell Name: P00042

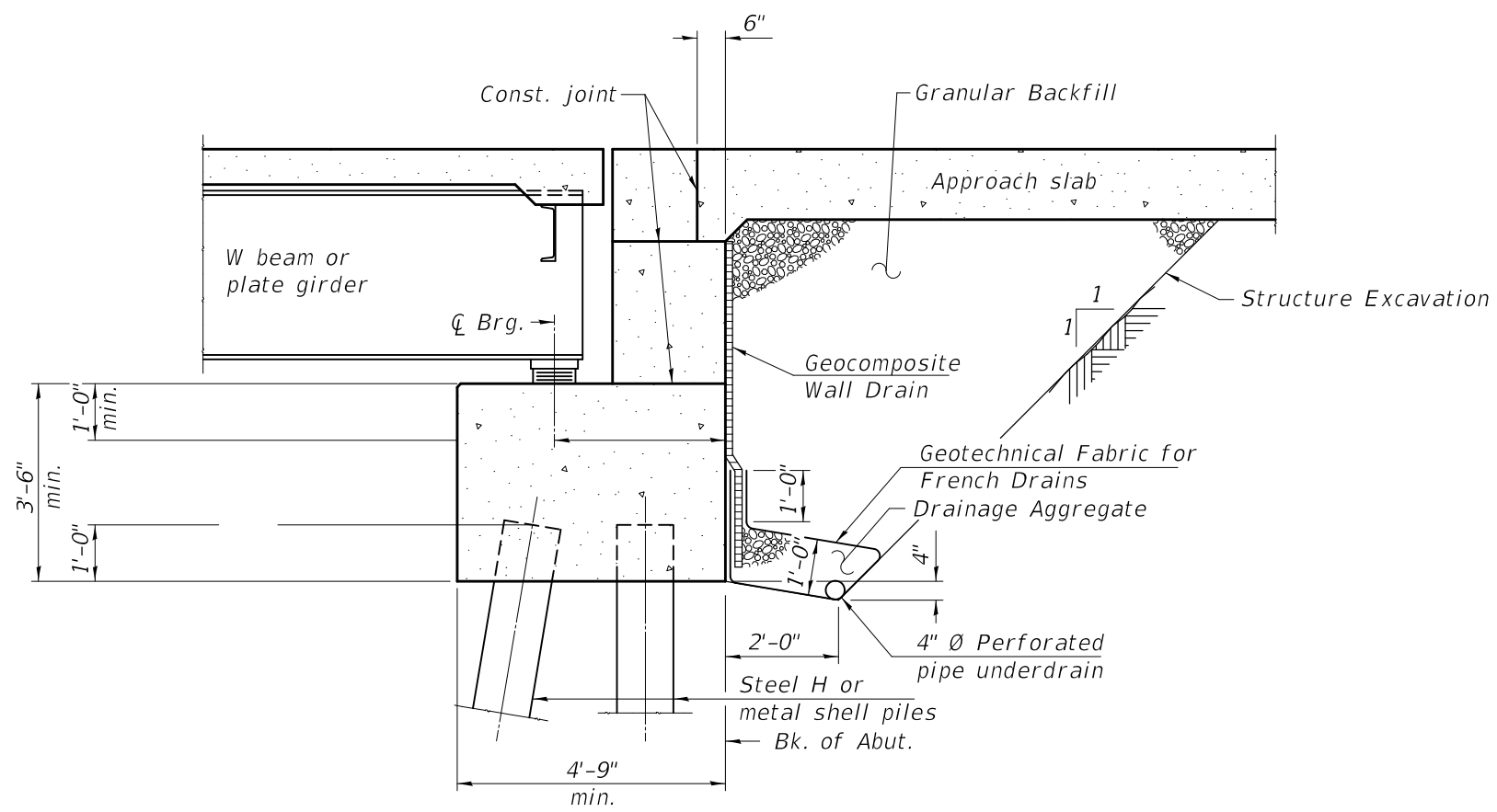
Descrip: Section thru pile supported stub abutment for PPC beams



SECTION THRU PILE SUPPORTED  
STUB ABUTMENT  
(Horiz. dim. @ Rt.  $\angle$ 's)

Cell Name: P00043

Descrip: Section thru pile supported stub abutment for steel beams or girders



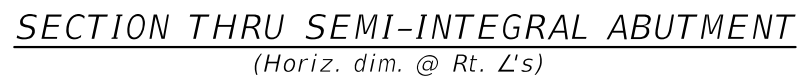
SECTION THRU PILE SUPPORTED  
STUB ABUTMENT  
(Horiz. dim. @ Rt. L's)

*Descrip: Section thru semi-integral abutment for PPC beams*



SECTION THRU SEMI-INTEGRAL ABUTMENT  
(Horiz. dim. @ Rt. L's)

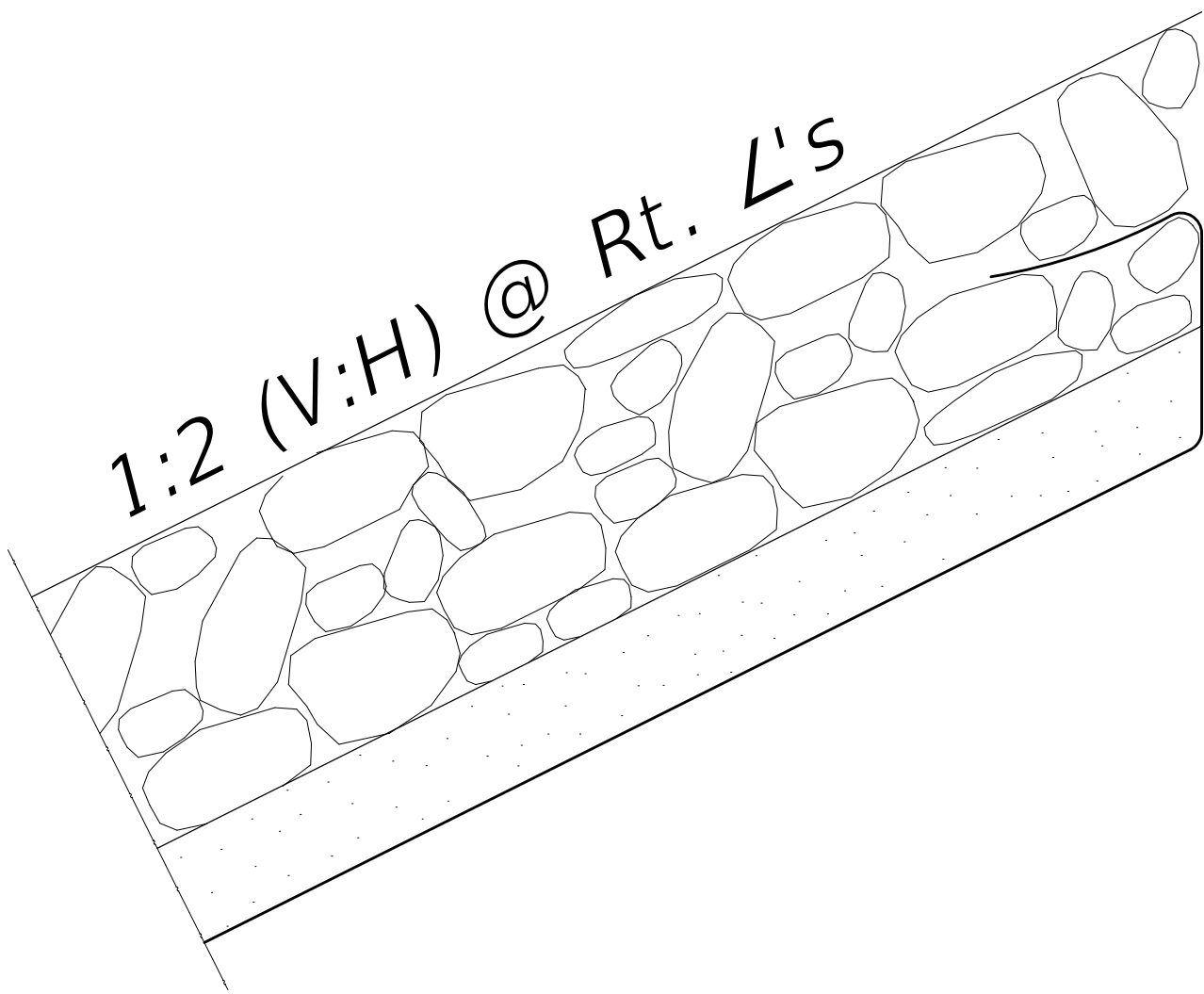
*Descrip: Section thru semi-integral abutment for steel beams or girders*



SECTION THRU SEMI-INTEGRAL ABUTMENT  
(Horiz. dim. @ Rt. L's)

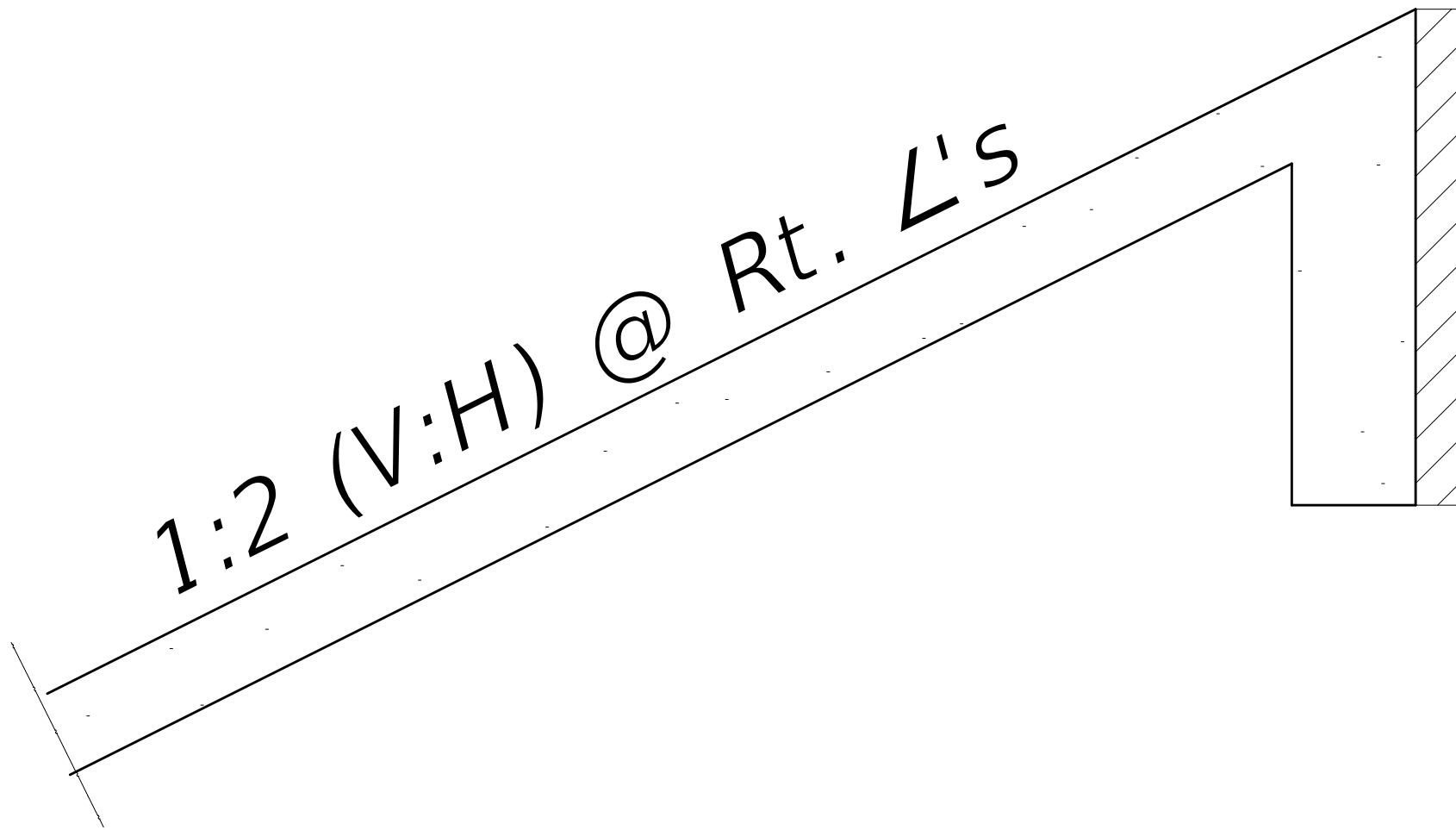
Cell Name: P00046

Descrip: Riprap for section thru abutment



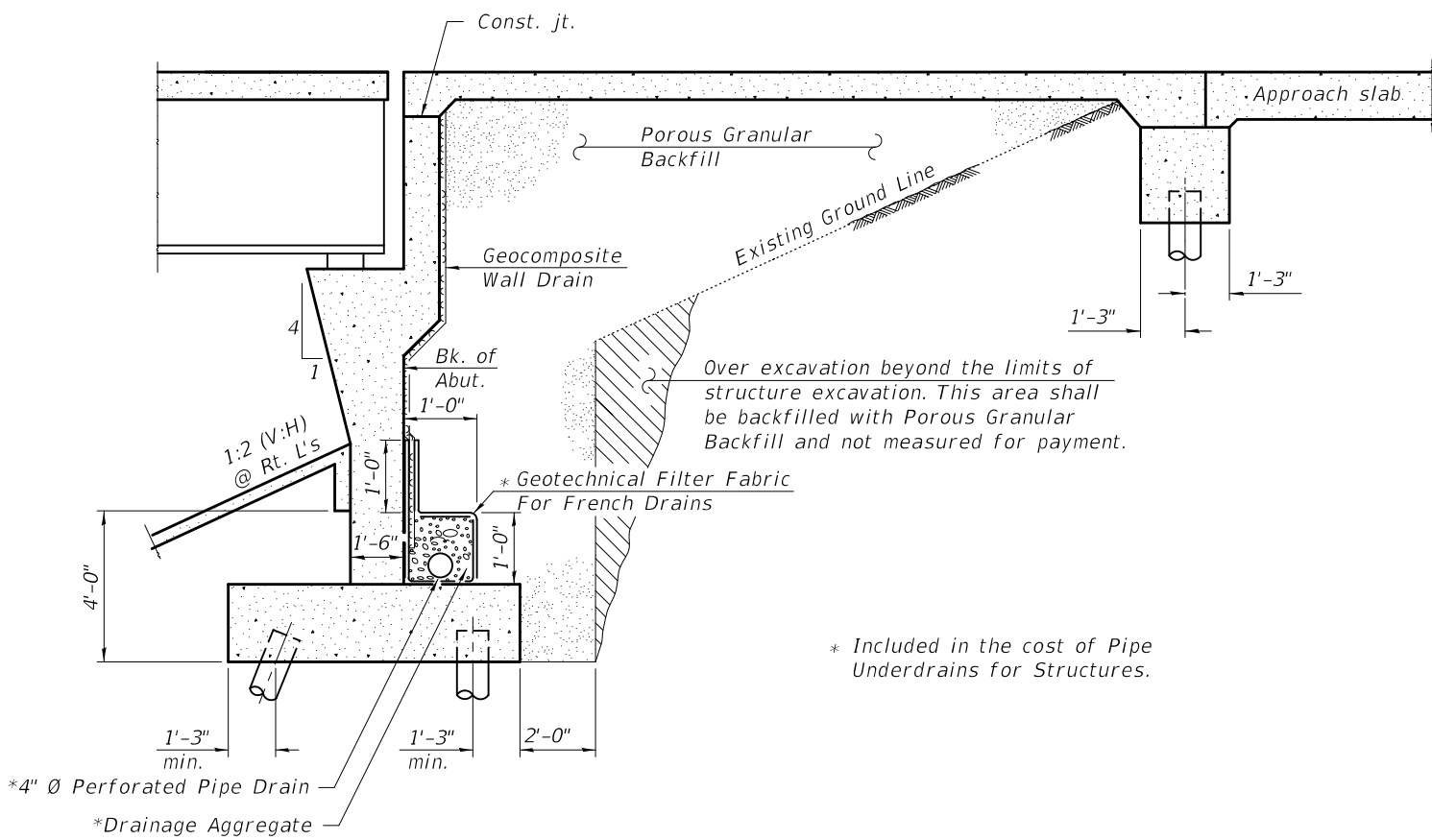
Cell Name: P00047

Descrip: Slopewall for section thru abutments



Cell Name: P00048

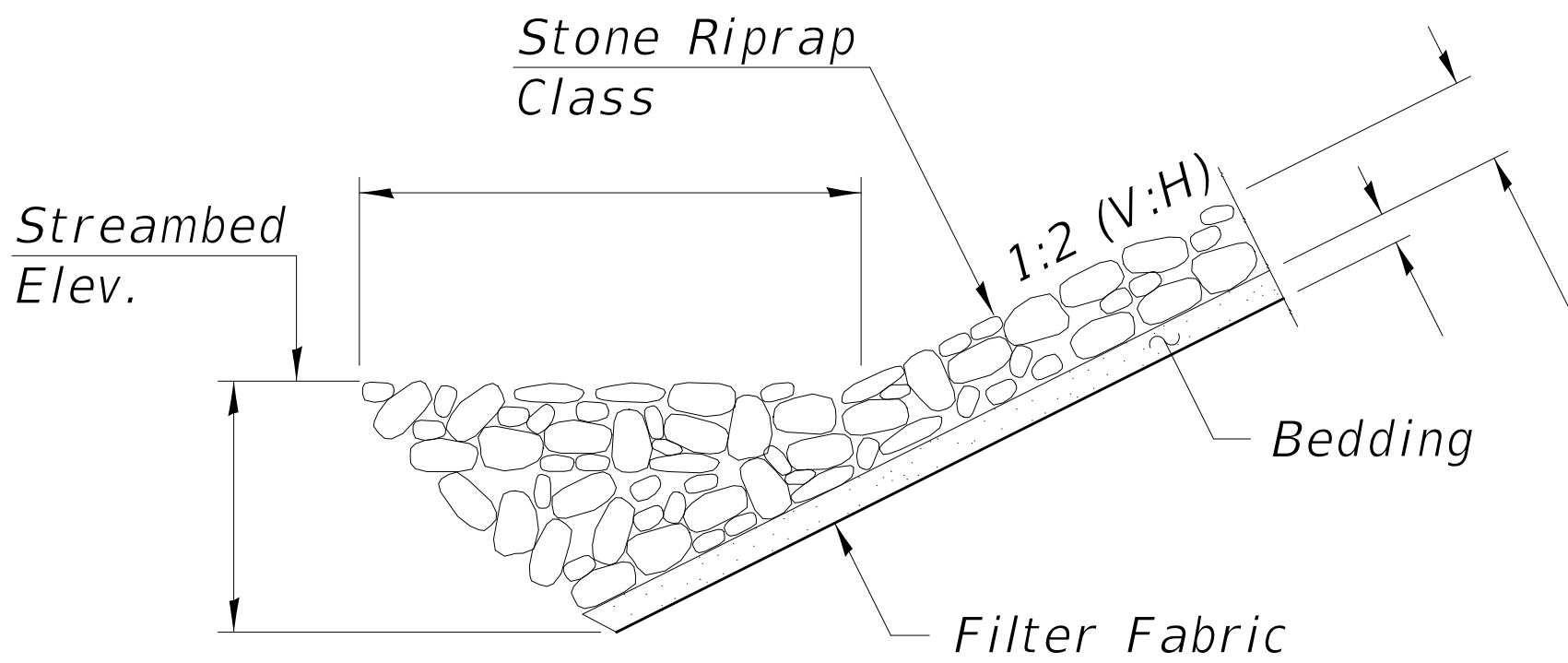
Descrip: Section Thru Filled Vaulted Abutment



SECTION THRU FILLED VAULTED ABUTMENT  
(Horiz. dim. @ Rt. L's)

Cell Name: P00050

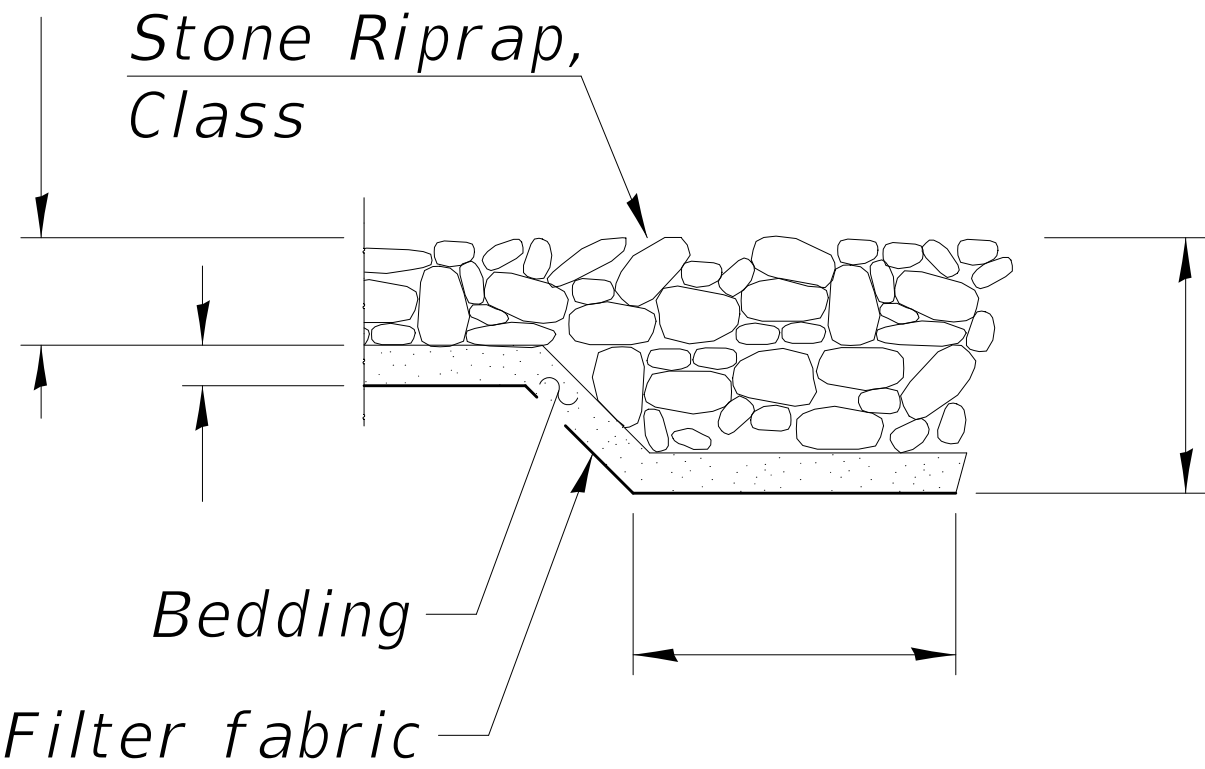
Descrip: Toe stone riprap treatment for stream crossings



SECTION A-A



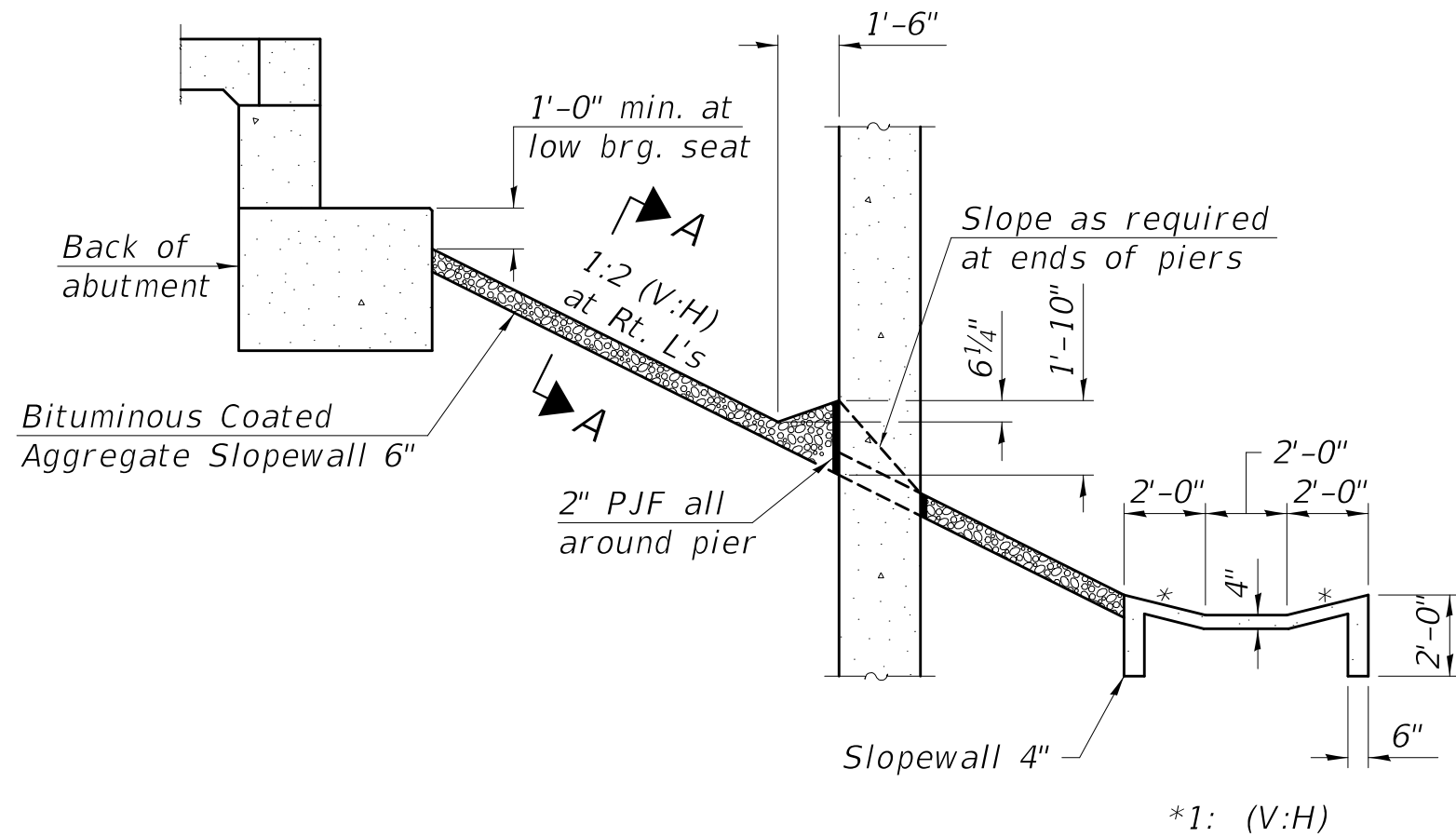
Cell Name: P00051  
Descrip: Flank stone riprap treatment for stream crossings



SECTION B-B

Cell Name: P00052

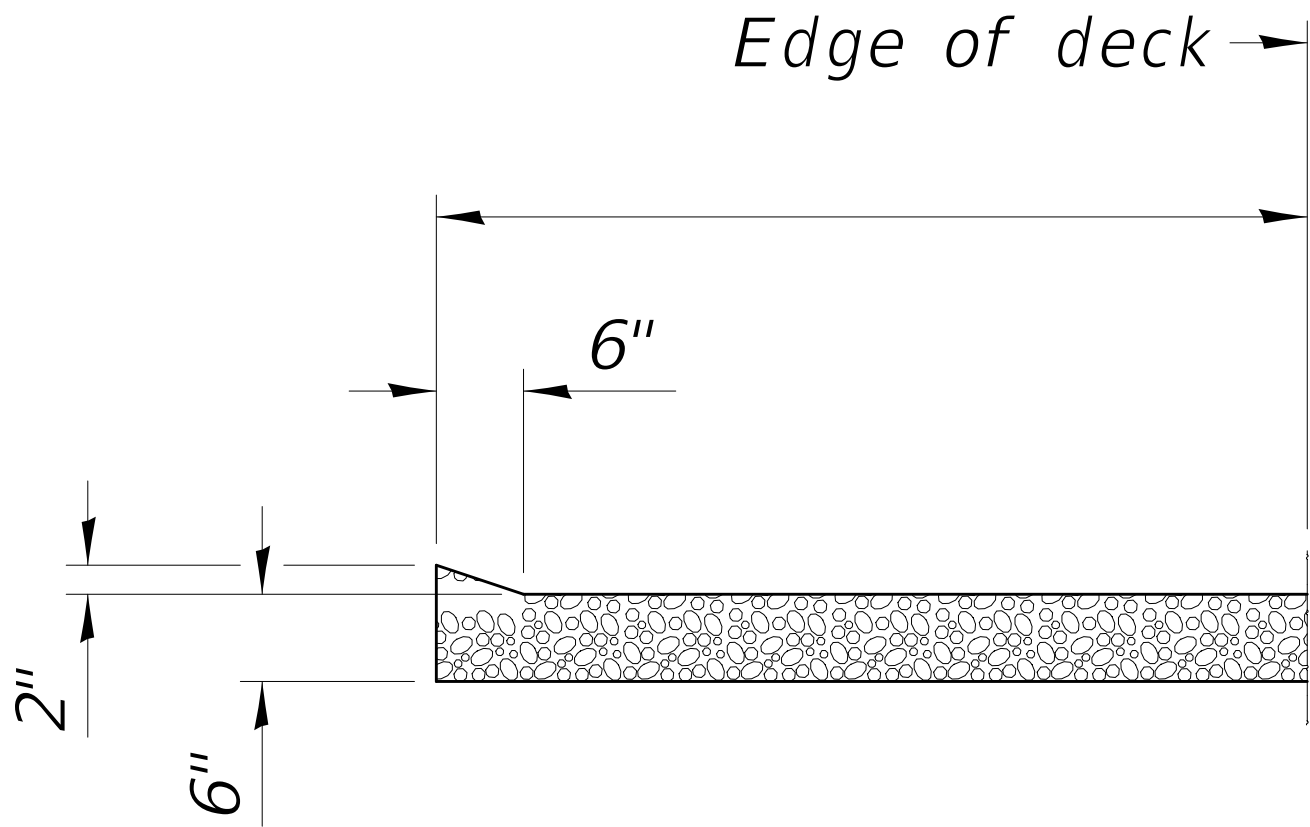
Descrip: Section thru bituminous coated aggregate slopewall



SECTION THRU BITUMINOUS  
COATED AGGREGATE SLOPEWALL

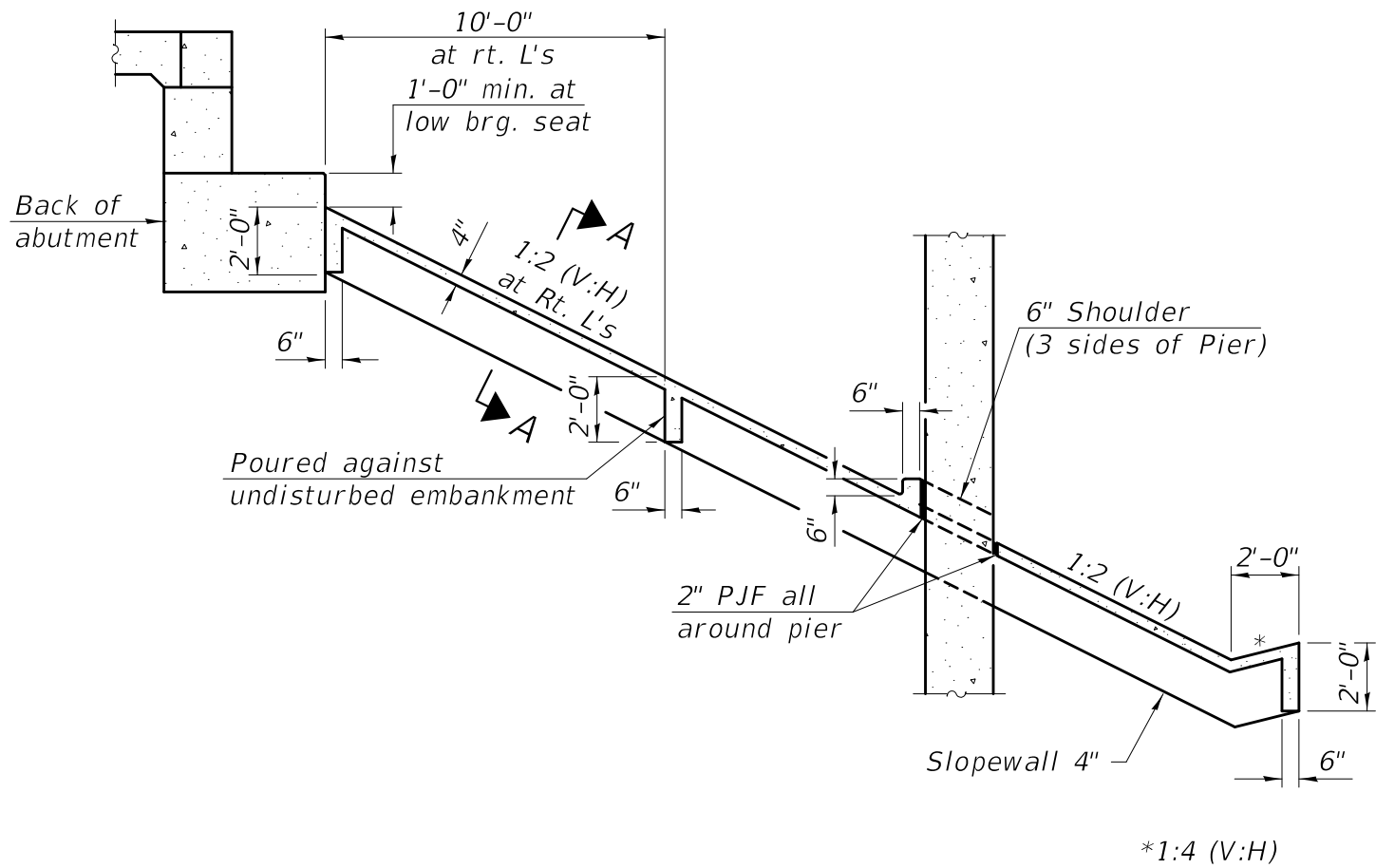
Cell Name: P00053

Descrip: Section at edge of bituminous coated aggregate slopewall



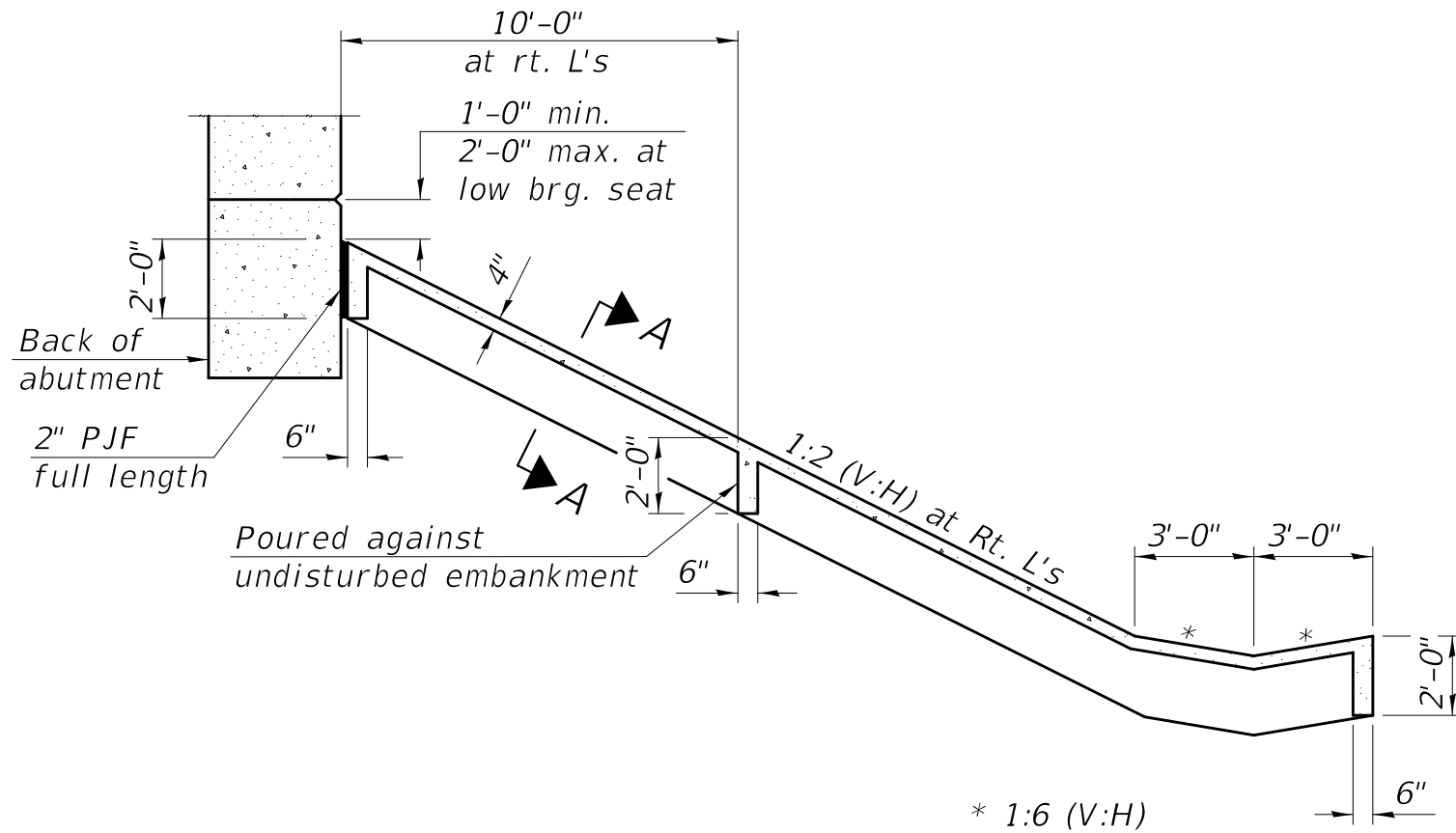
SECTION A-A

Cell Name: P00054  
Descrip: Section thru concrete slopewall (from stub abutment)



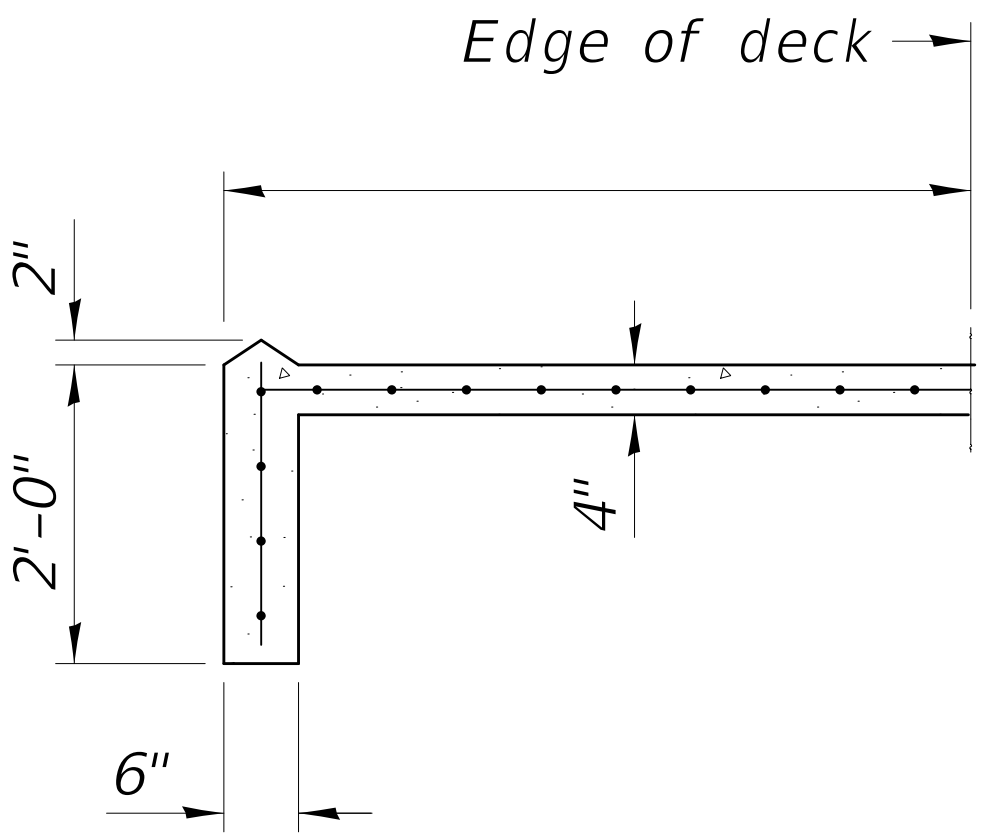
SECTION THRU  
CONCRETE SLOPEWALL

*Descrip: Section thru concrete slopewall (from integral abutment)*



SECTION THRU  
CONCRETE SLOPEWALL

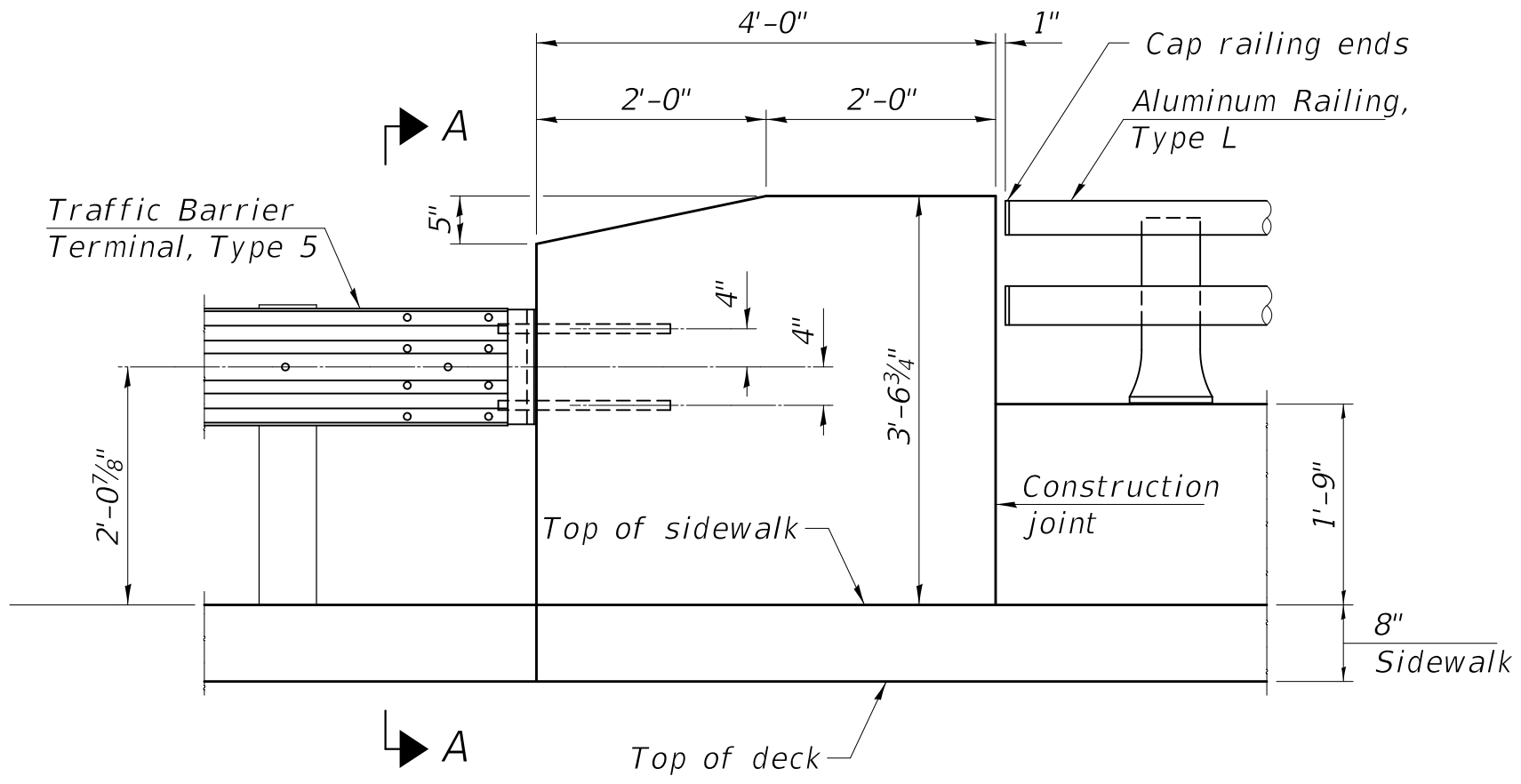
Cell Name: P00056  
Descrip: Section at edge of concrete slopewall



SECTION A-A

Cell Name: P00060

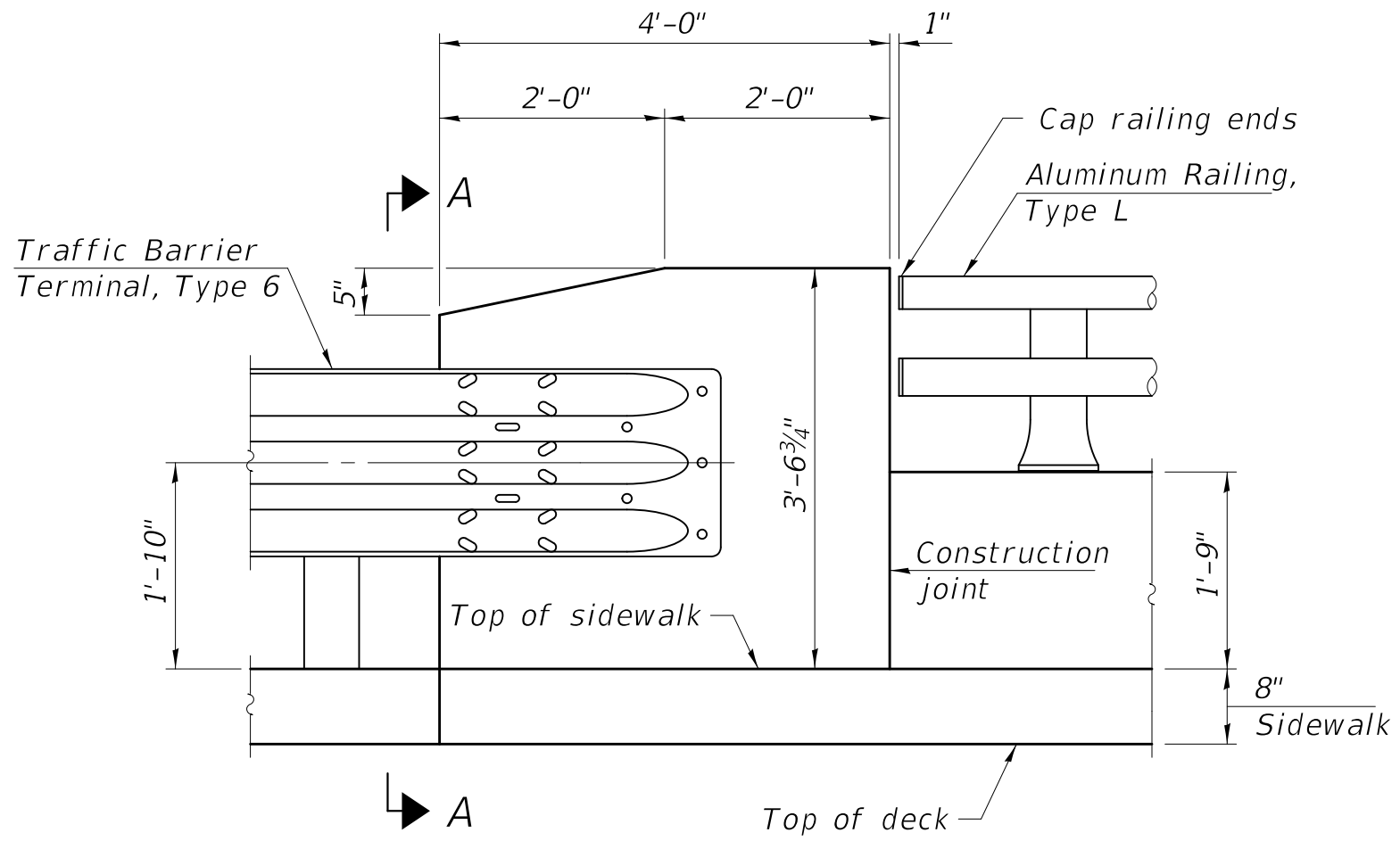
Descrip: Railing end treatment elevation for type 5 terminal and aluminum railing



ELEVATION

Cell Name: P00061

Descrip: Railing end treatment elevation for type 6 terminal and aluminum railing

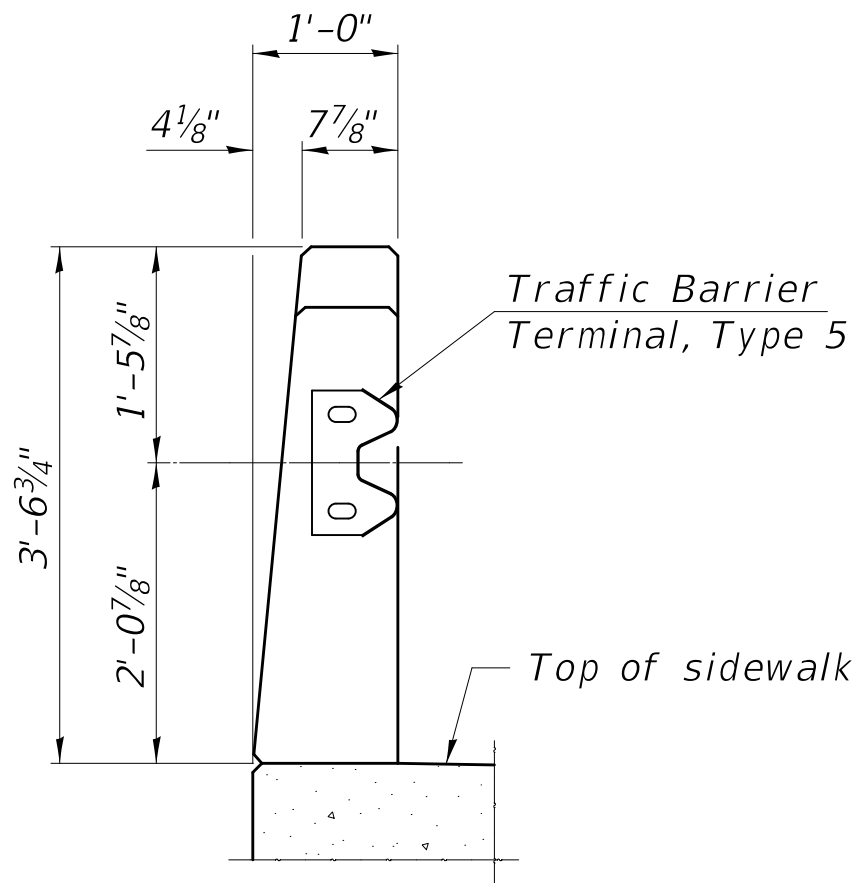


ELEVATION



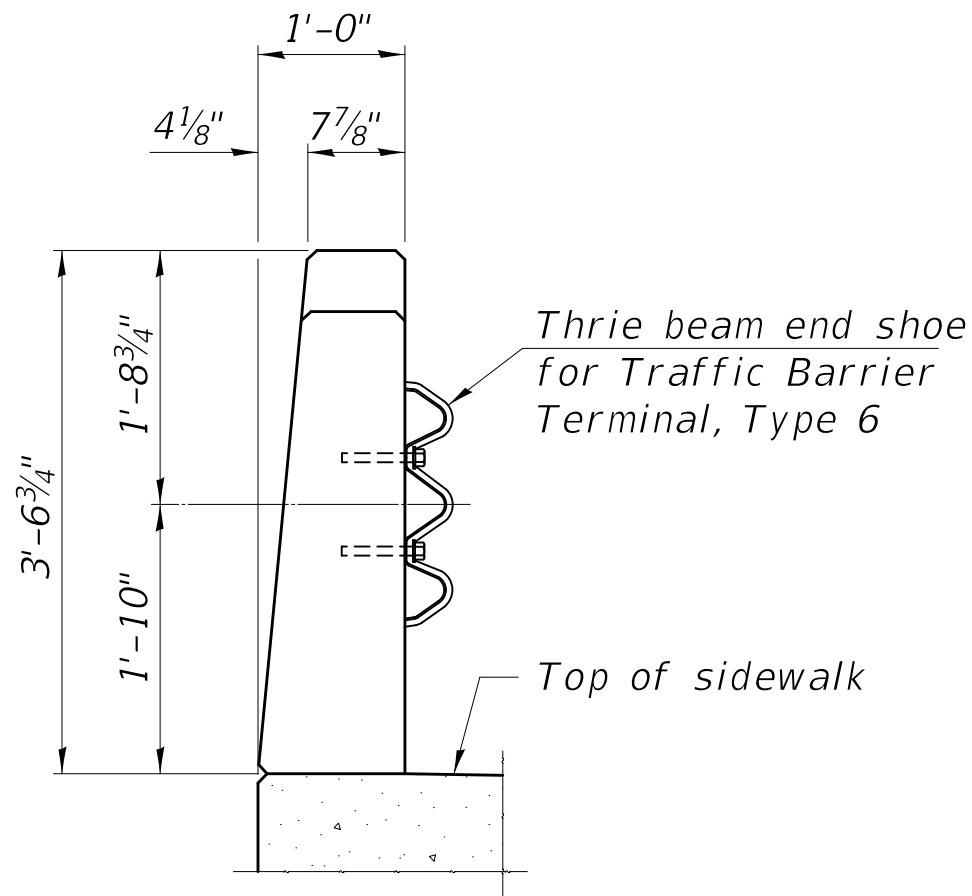
Cell Name: P00062

Descrip: Railing end treatment section for type 5 terminal and aluminum railing



SECTION A-A

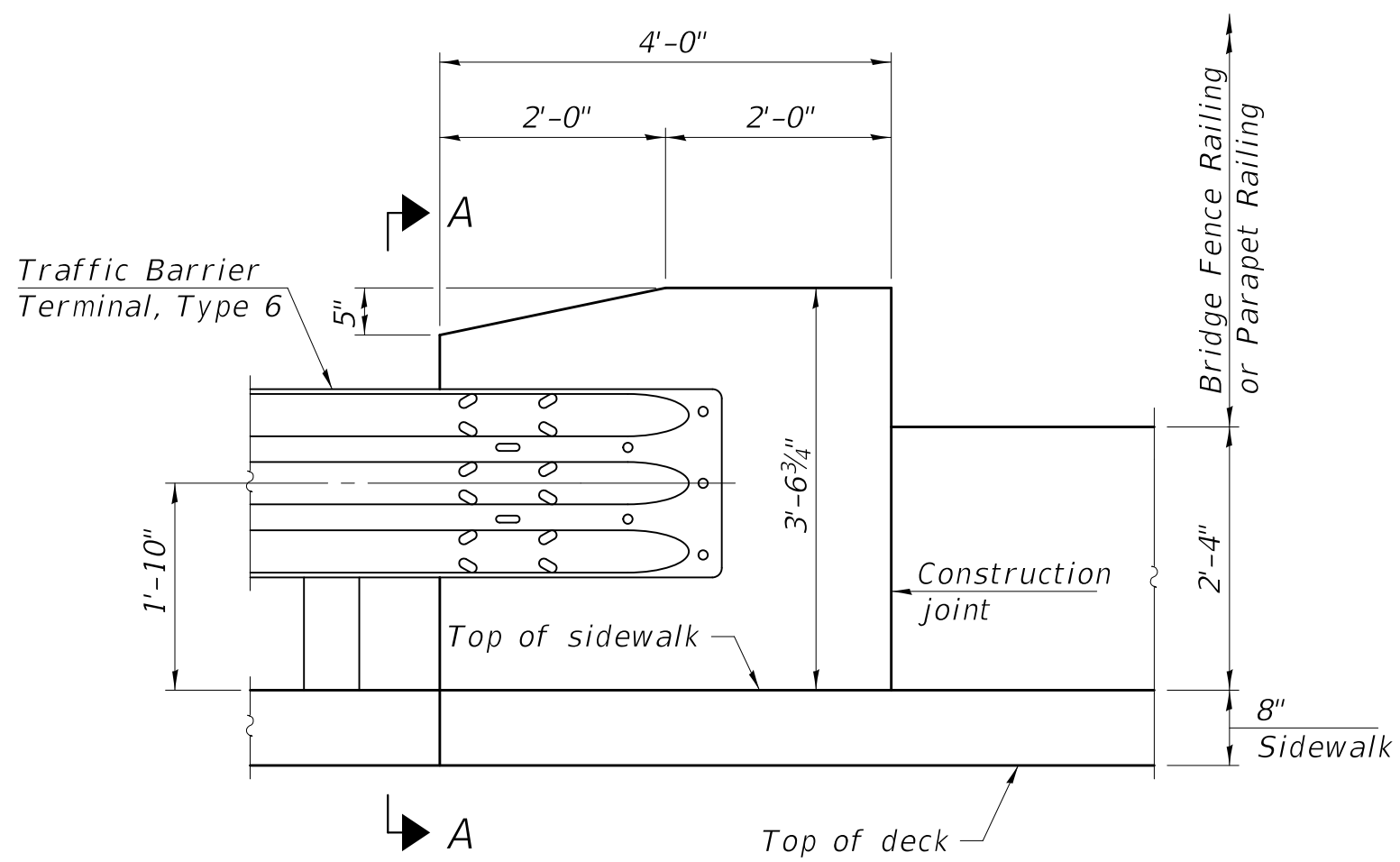
Cell Name: P00063  
Descrip: Railing end treatment section for type 6 terminal



SECTION A-A

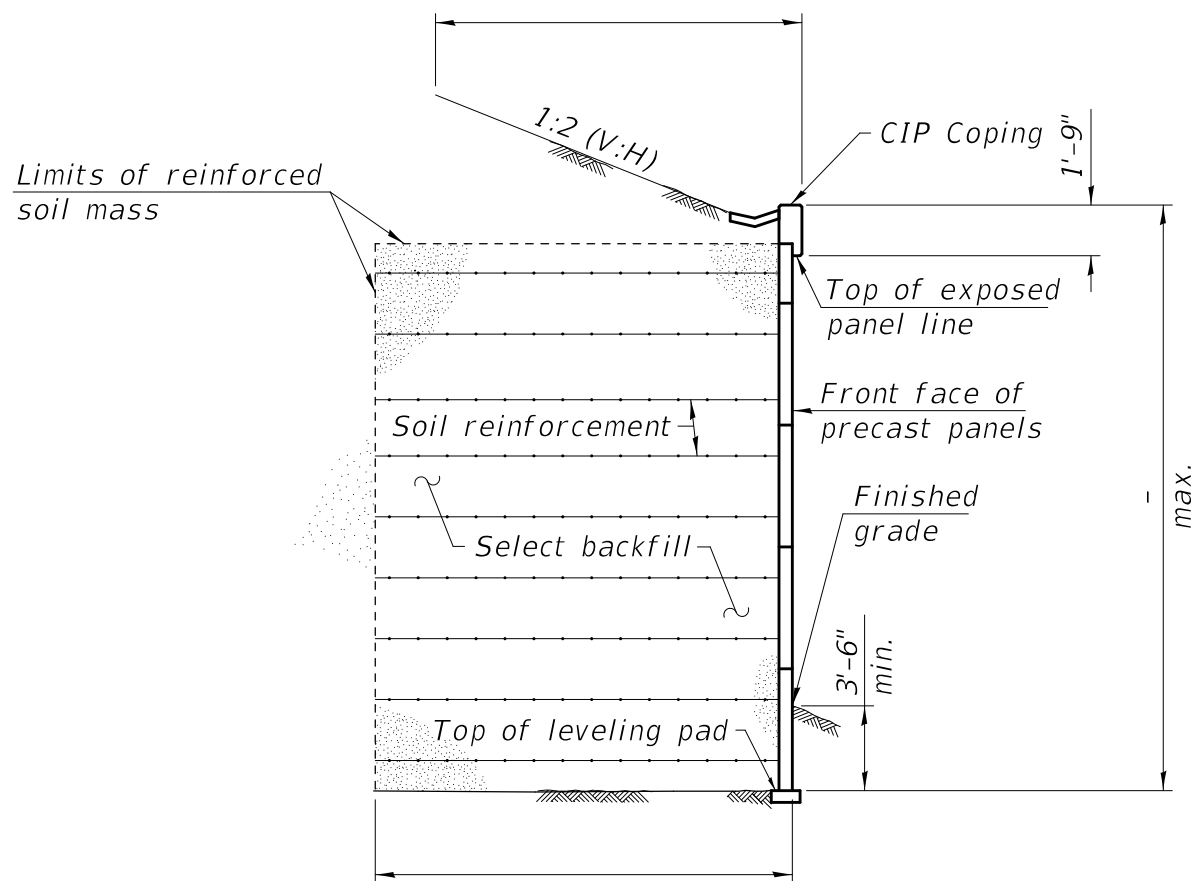
Cell Name: P00064

Descrip: Railing end treatment elevation for type 6 terminal and bridge fence or parapet railing



ELEVATION

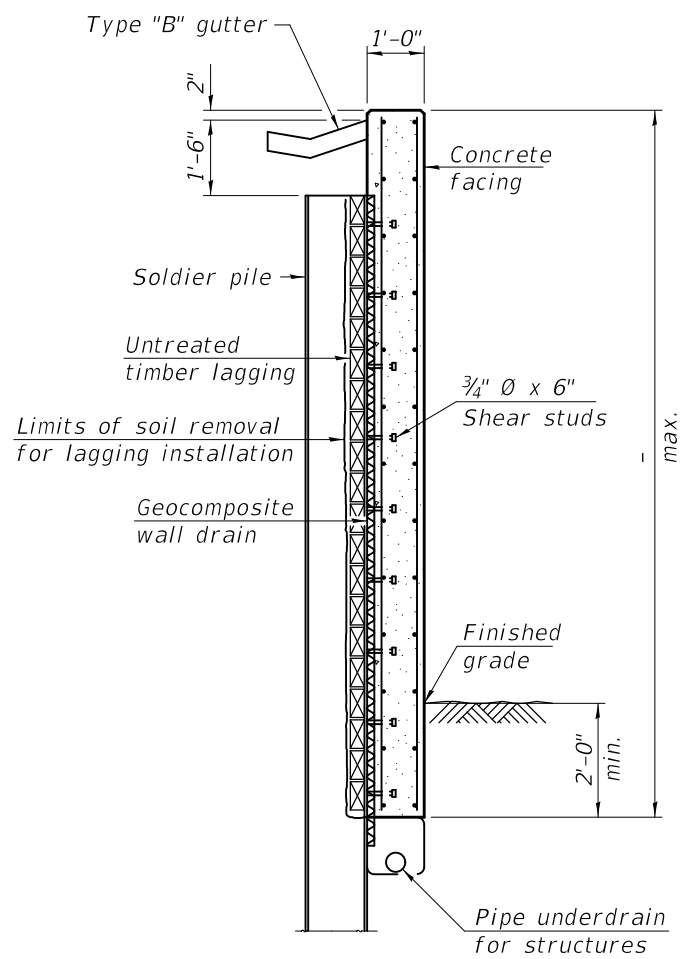
Cell Name: P00070  
Descrip: MSE wall with CIP coping section



SECTION THRU  
MSE WALL

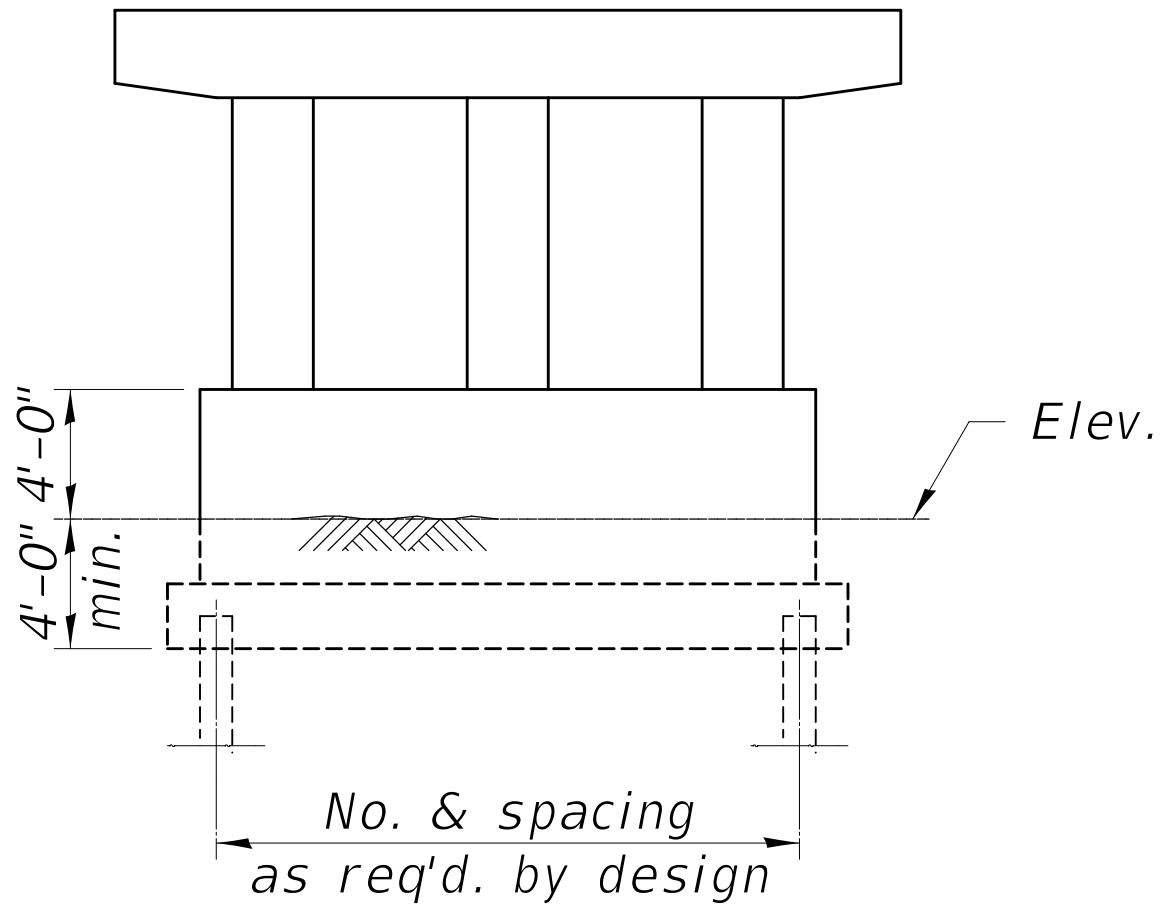
Cell Name: P00071

Descrip: Soldier pile wall with concrete facing section



SECTION THRU  
SOLDIER PILE WALL

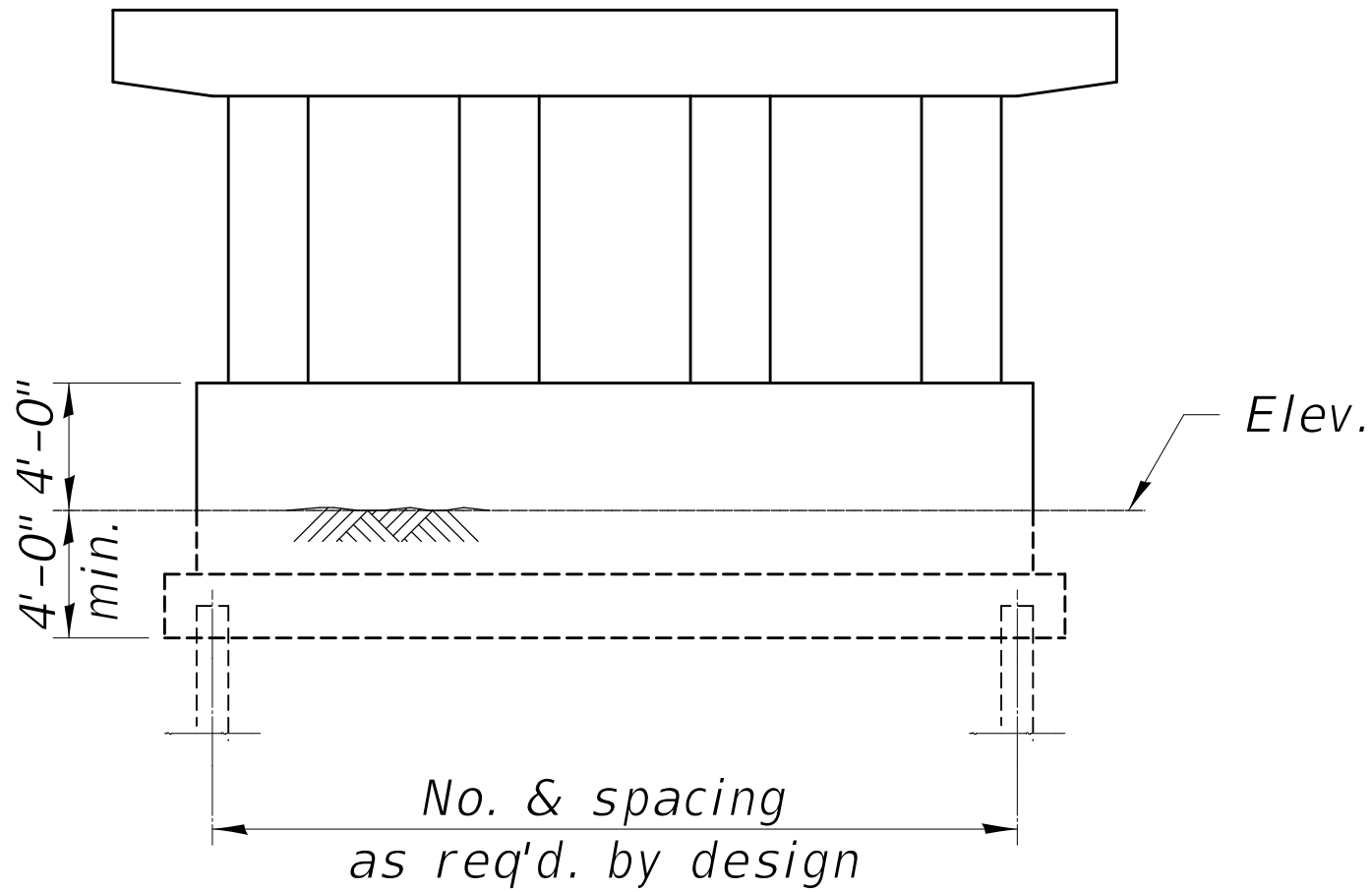
Cell Name: P00077  
Descrip: Multiple round column grade separation pier sketch (3)



PIER SKETCH

Cell Name: P00078

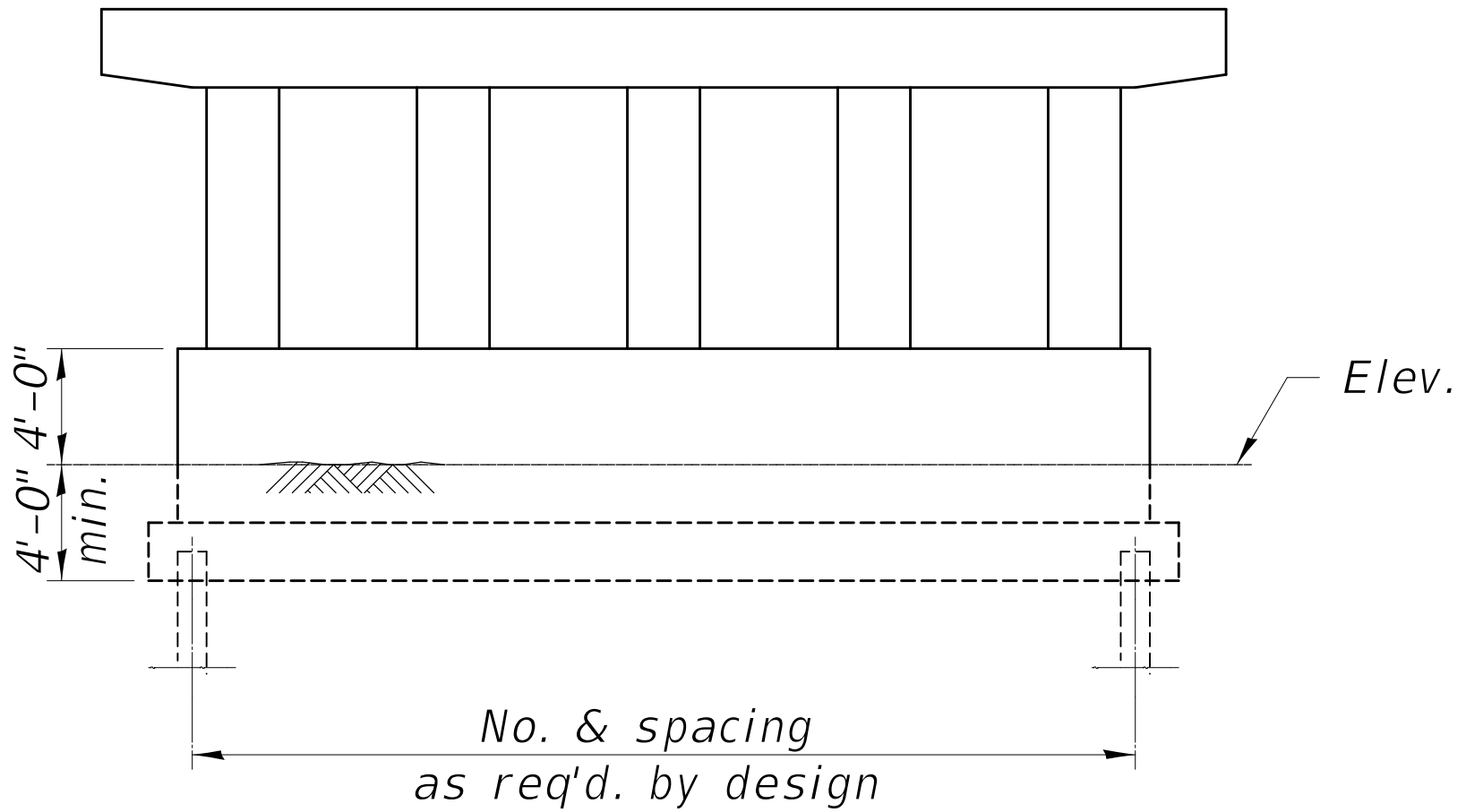
Descrip: Multiple round column grade separation pier sketch (4)



PIER SKETCH

Cell Name: P00079

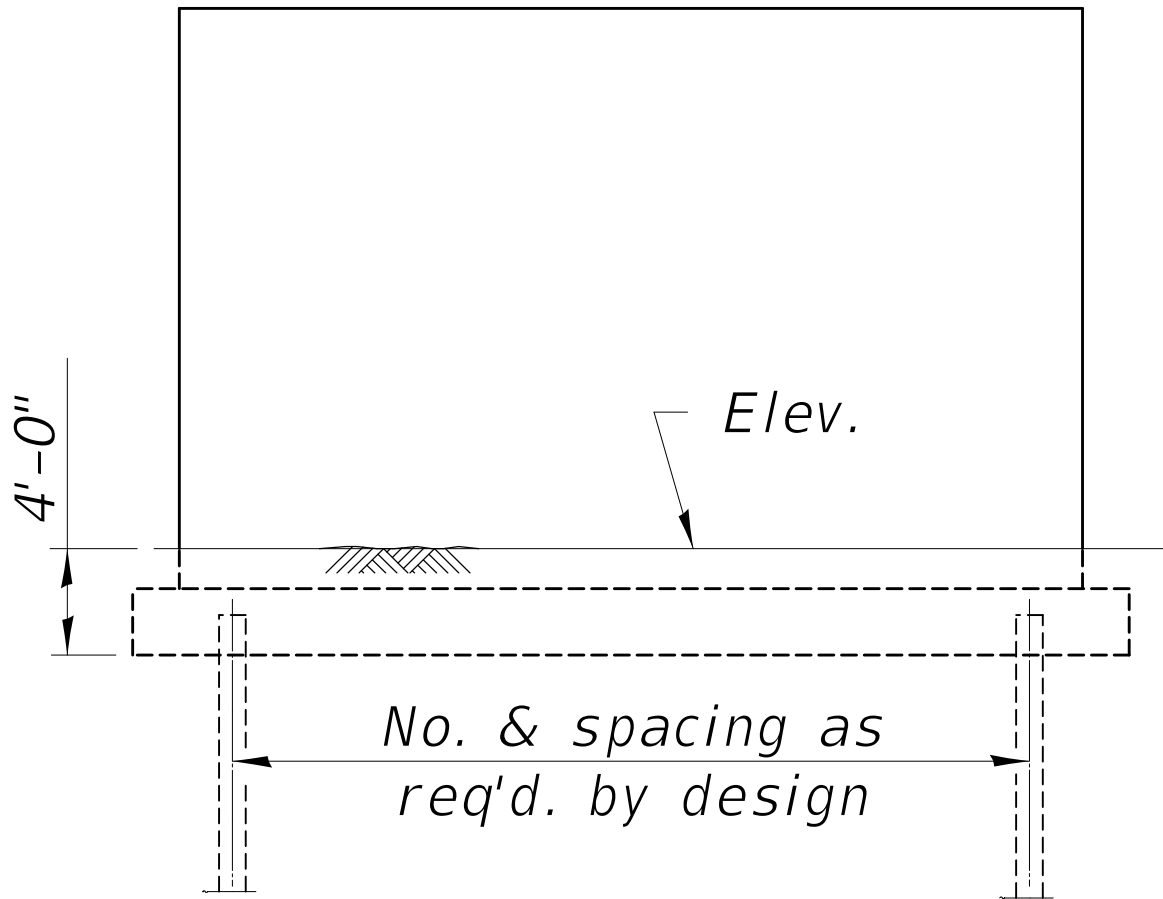
Descrip: Multiple round column grade separation pier sketch (5)



PIER SKETCH

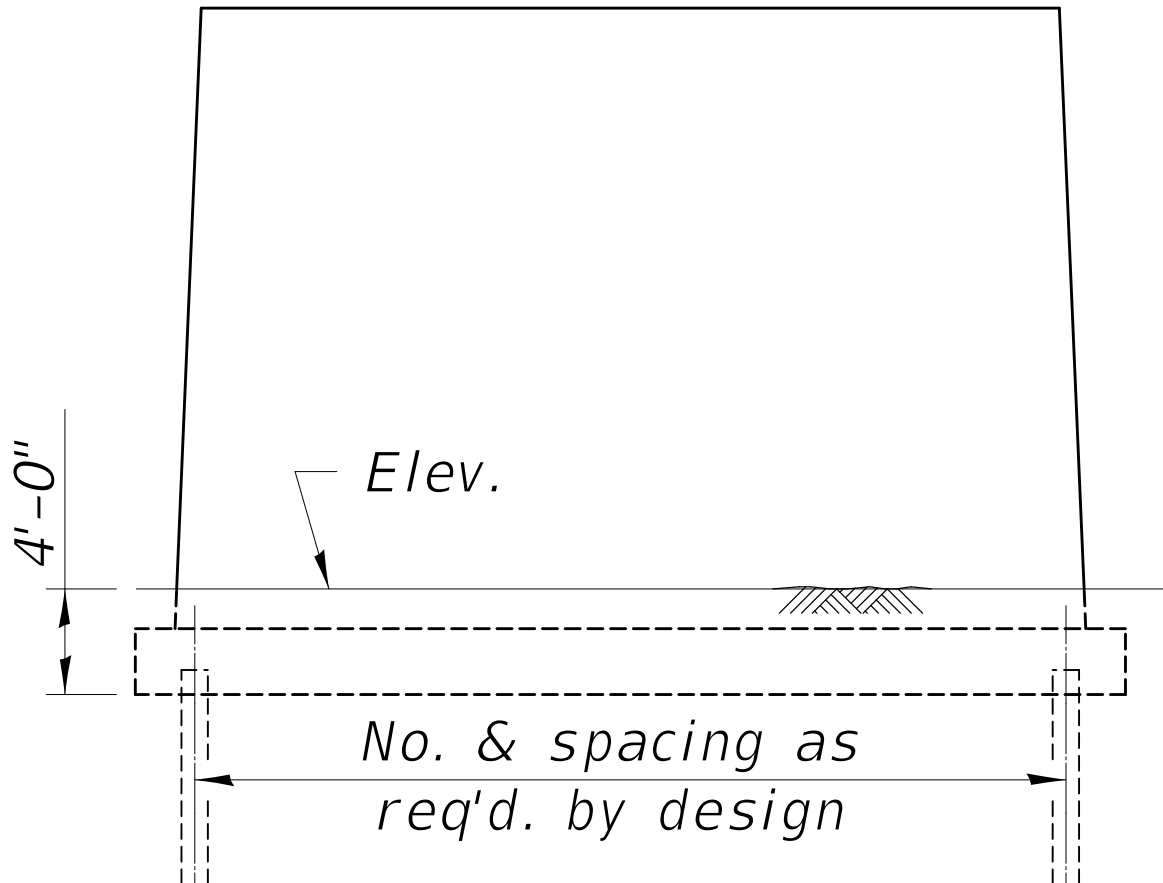


Cell Name: P00080  
Descrip: Solid, spread footing pier sketch



PIER SKETCH

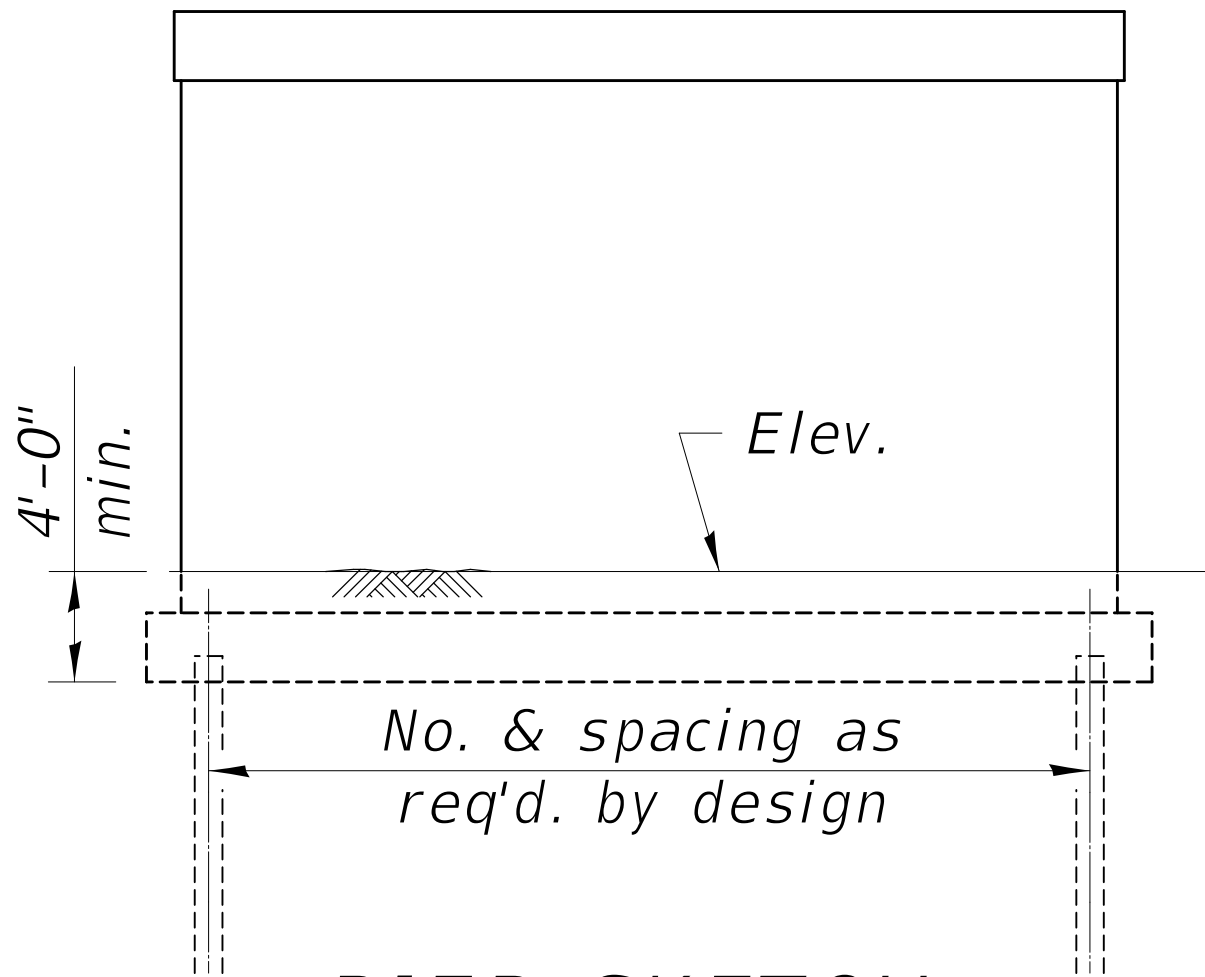
Cell Name: P00081  
Descrip: Solid, battered, spread footing pier sketch



PIER SKETCH

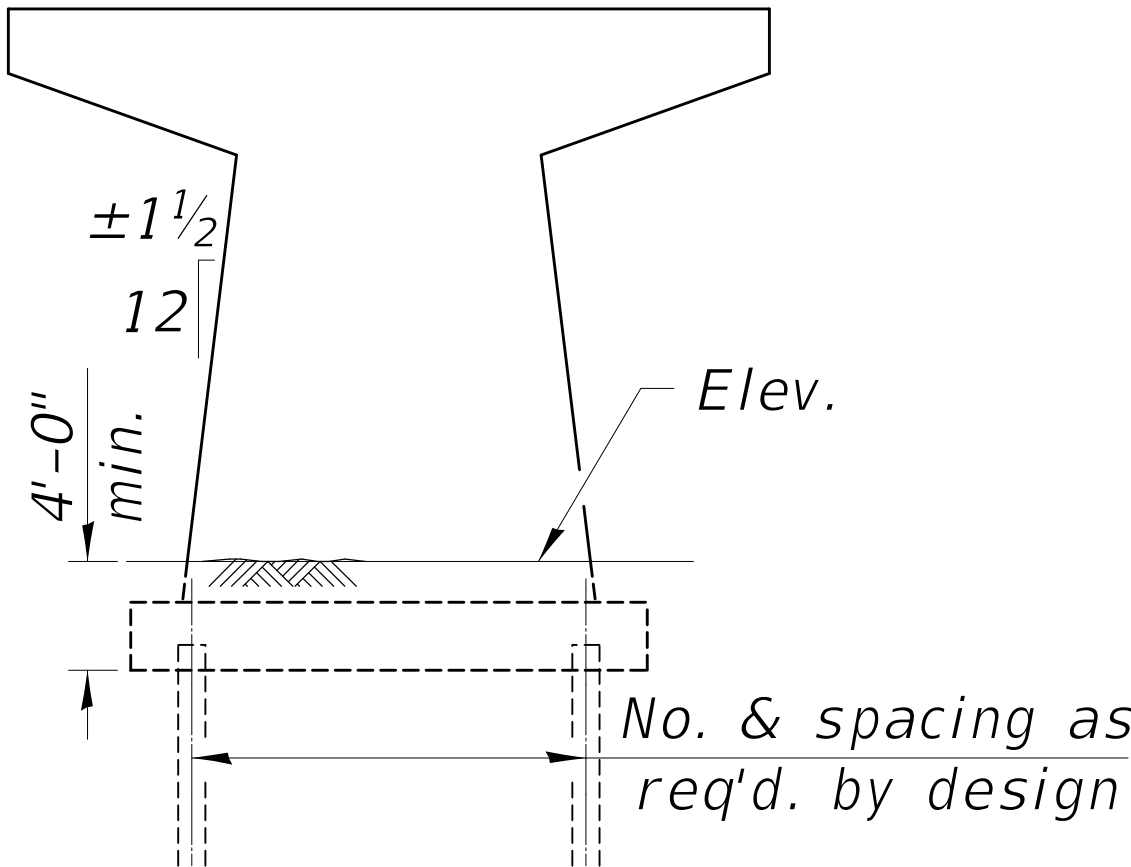
Cell Name: P00082

Descrip: Solid, with cap and spread footing pier sketch



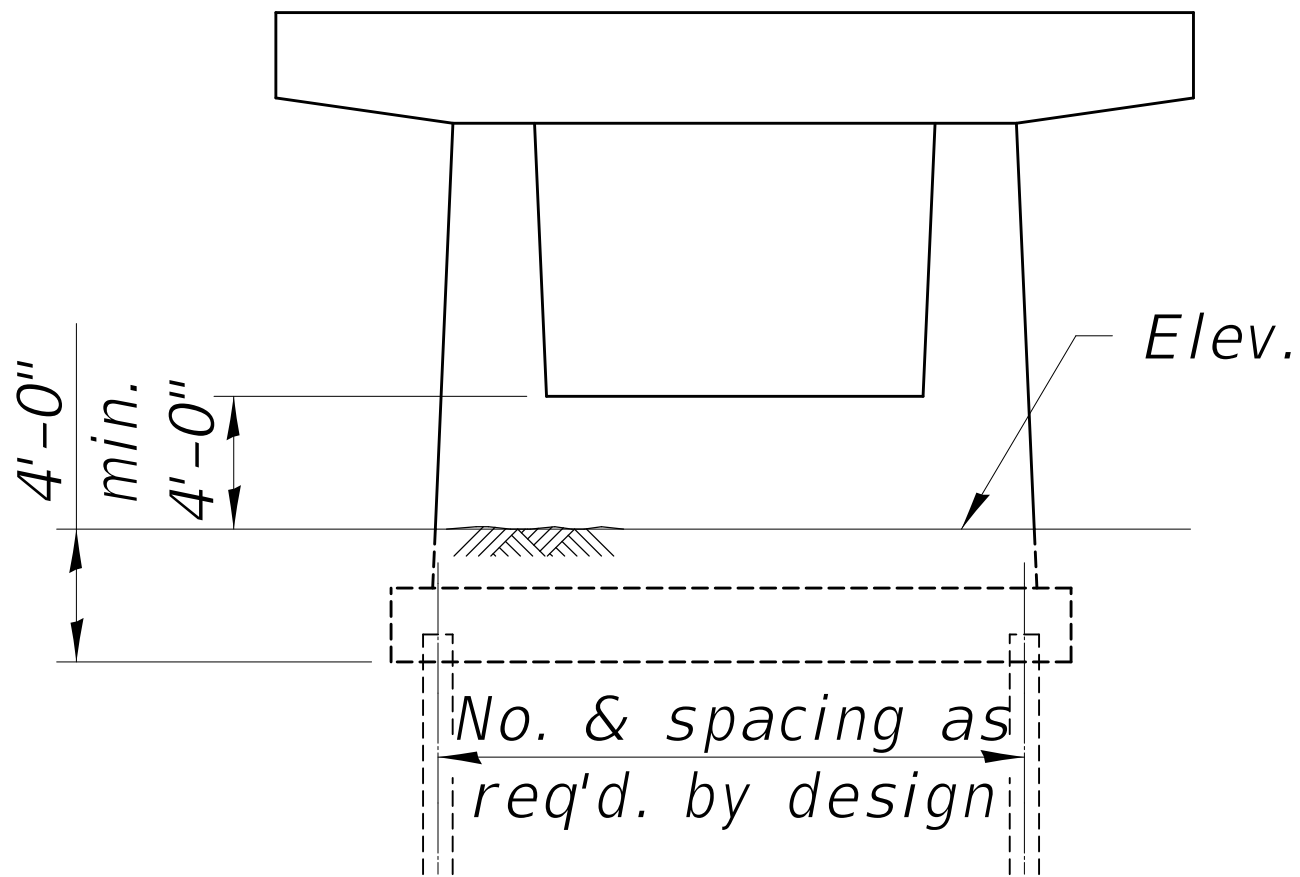
PIER SKETCH

Cell Name: P00083  
Descrip: Single hammerhead pier sketch



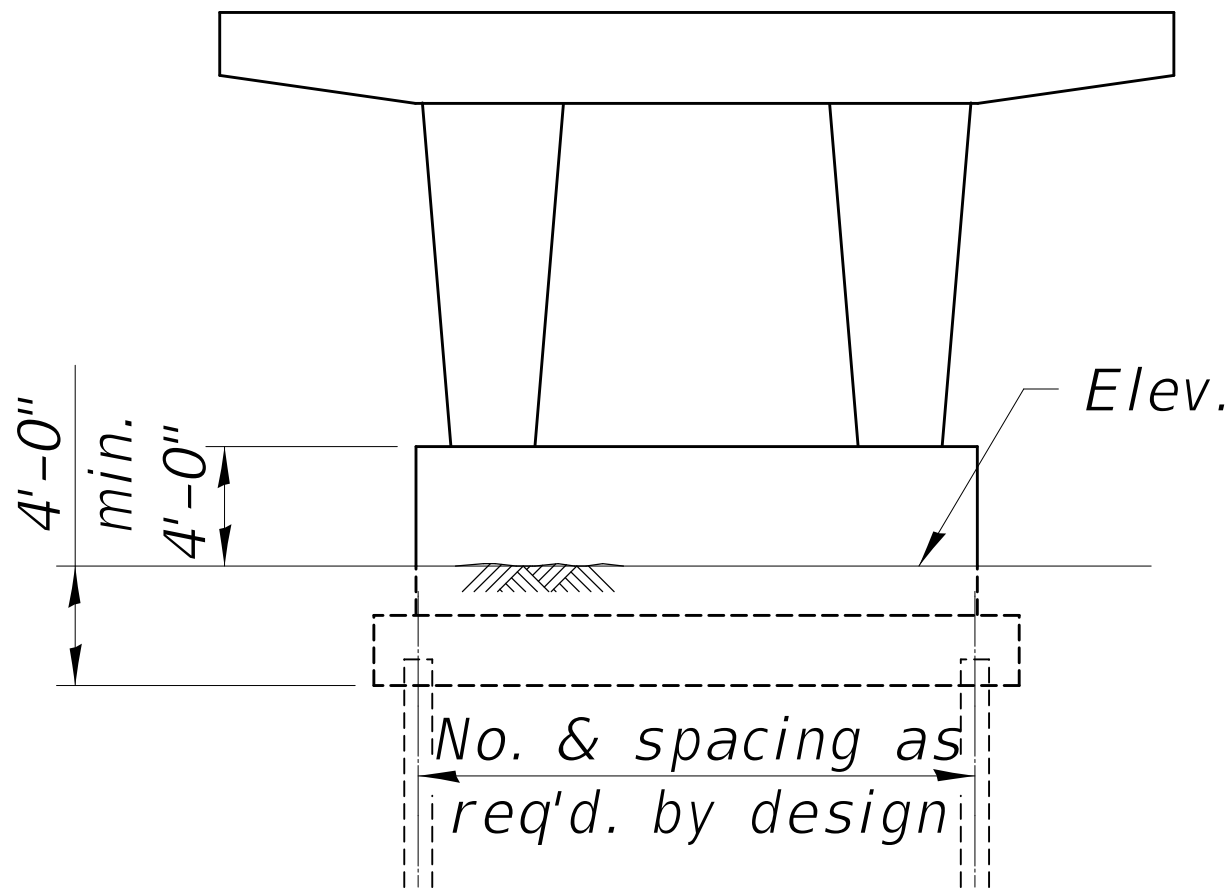
PIER SKETCH

Cell Name: P00084  
Descrip: Double hammerhead pier sketch



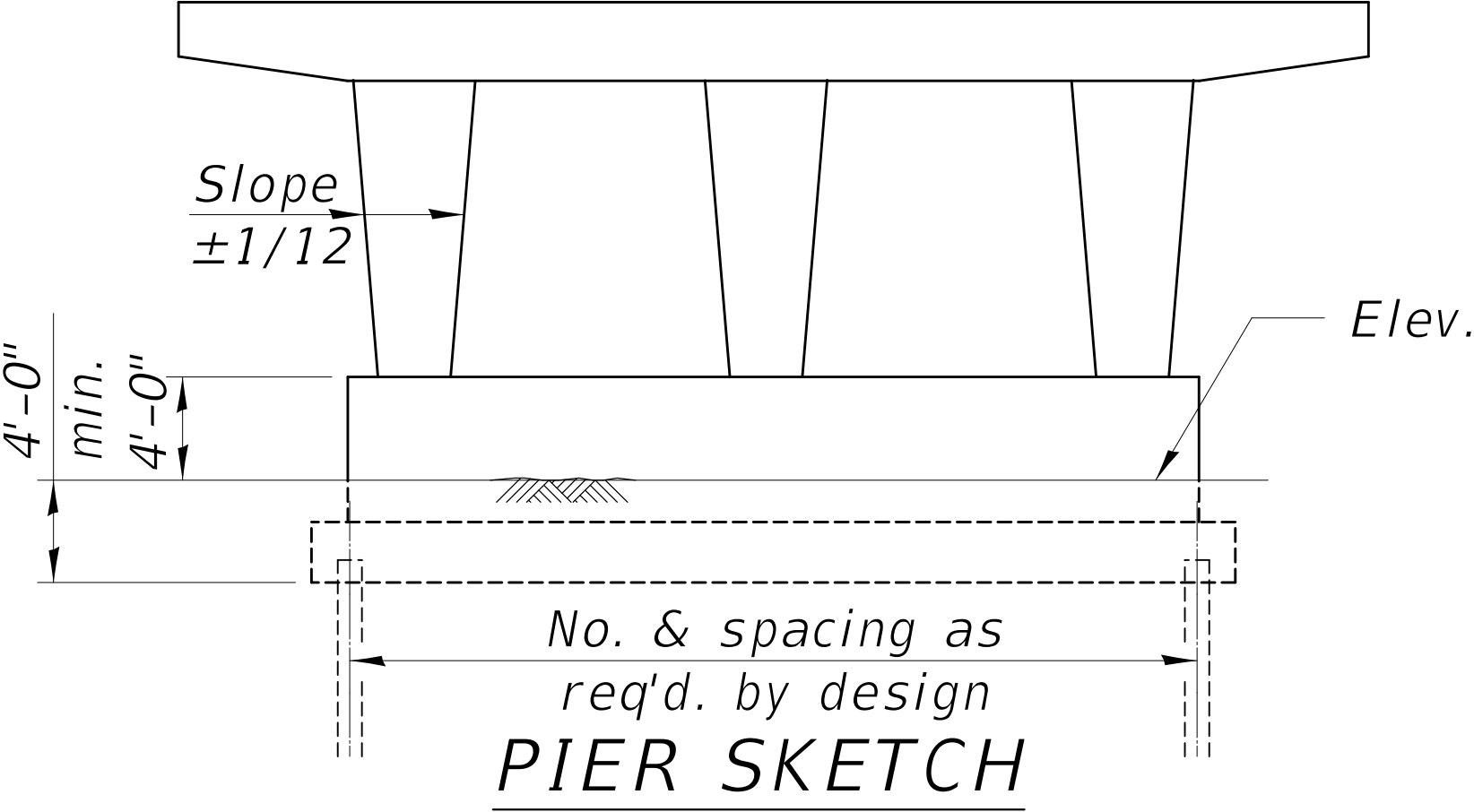
PIER SKETCH

Cell Name: P00085  
Descrip: 2 column pier sketch

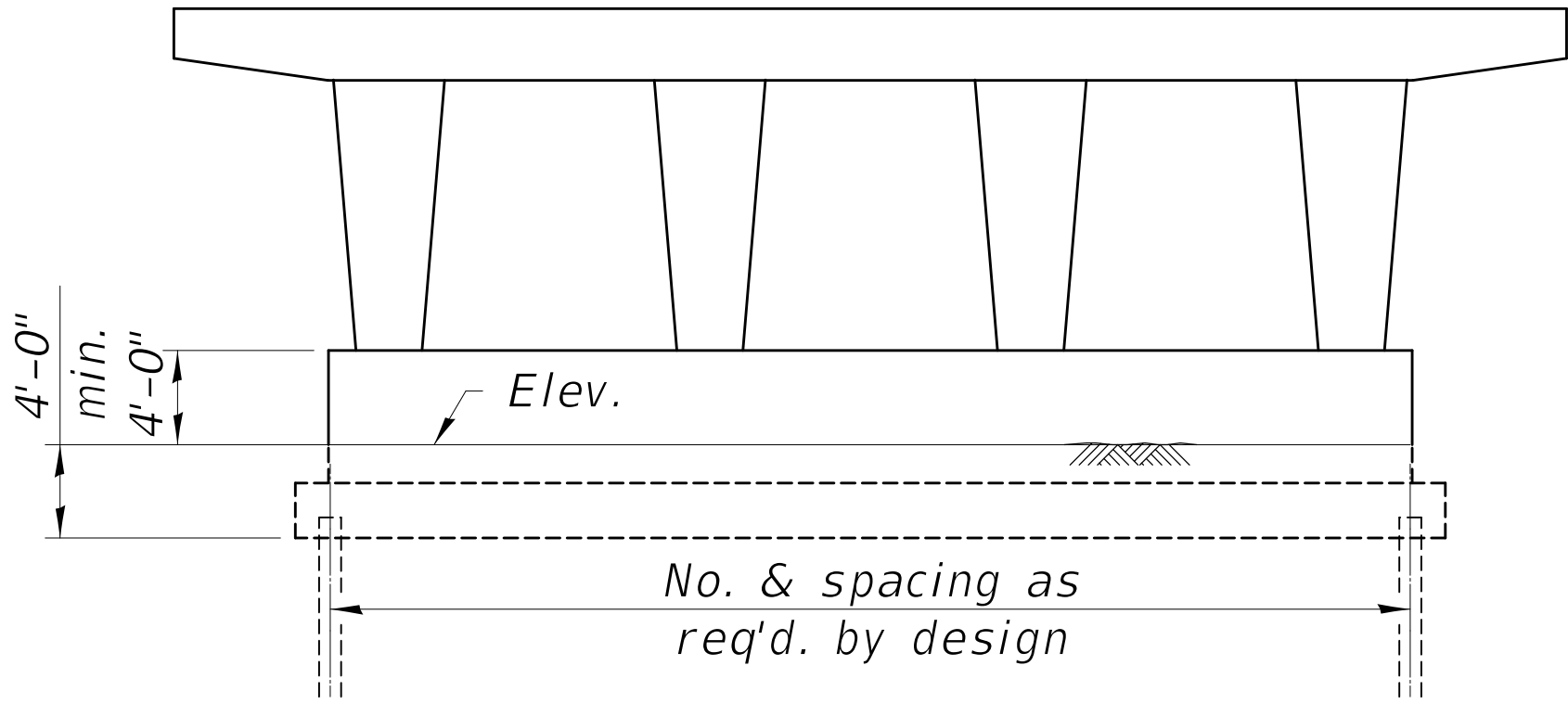


PIER SKETCH

Cell Name: P00086  
Descrip: 3 column pier sketch



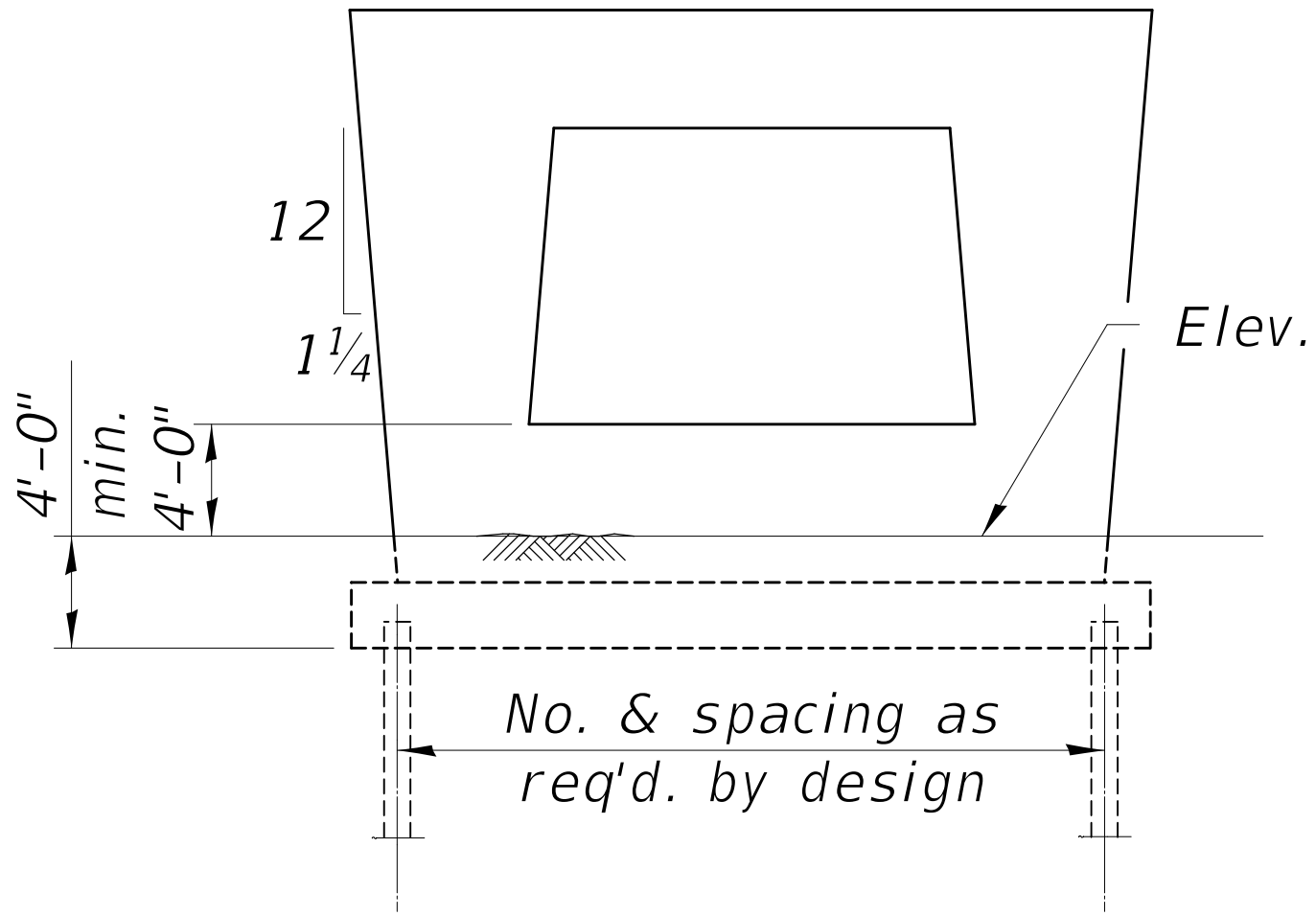
Cell Name: P00087  
Descrip: 4 column pier sketch



PIER SKETCH

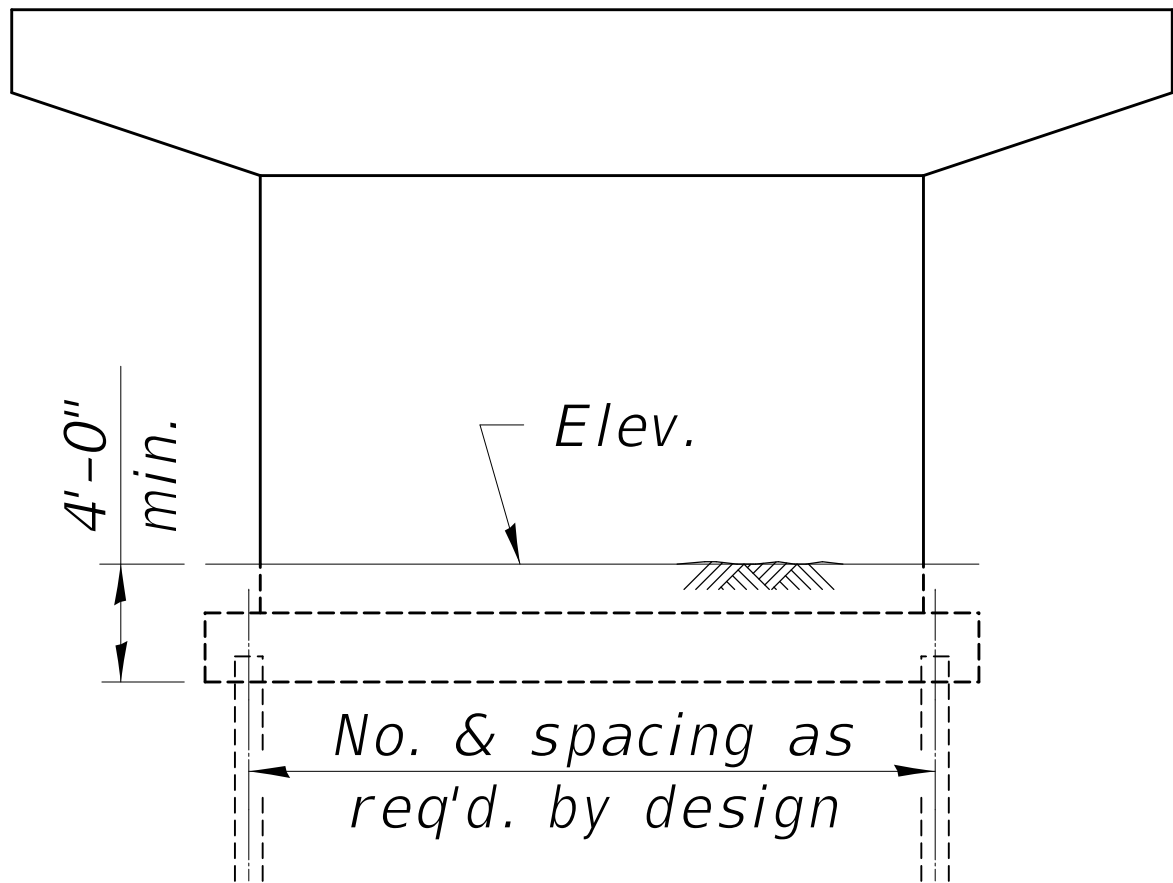


Cell Name: P00088  
Descrip: 2 column trapezoidal pier sketch



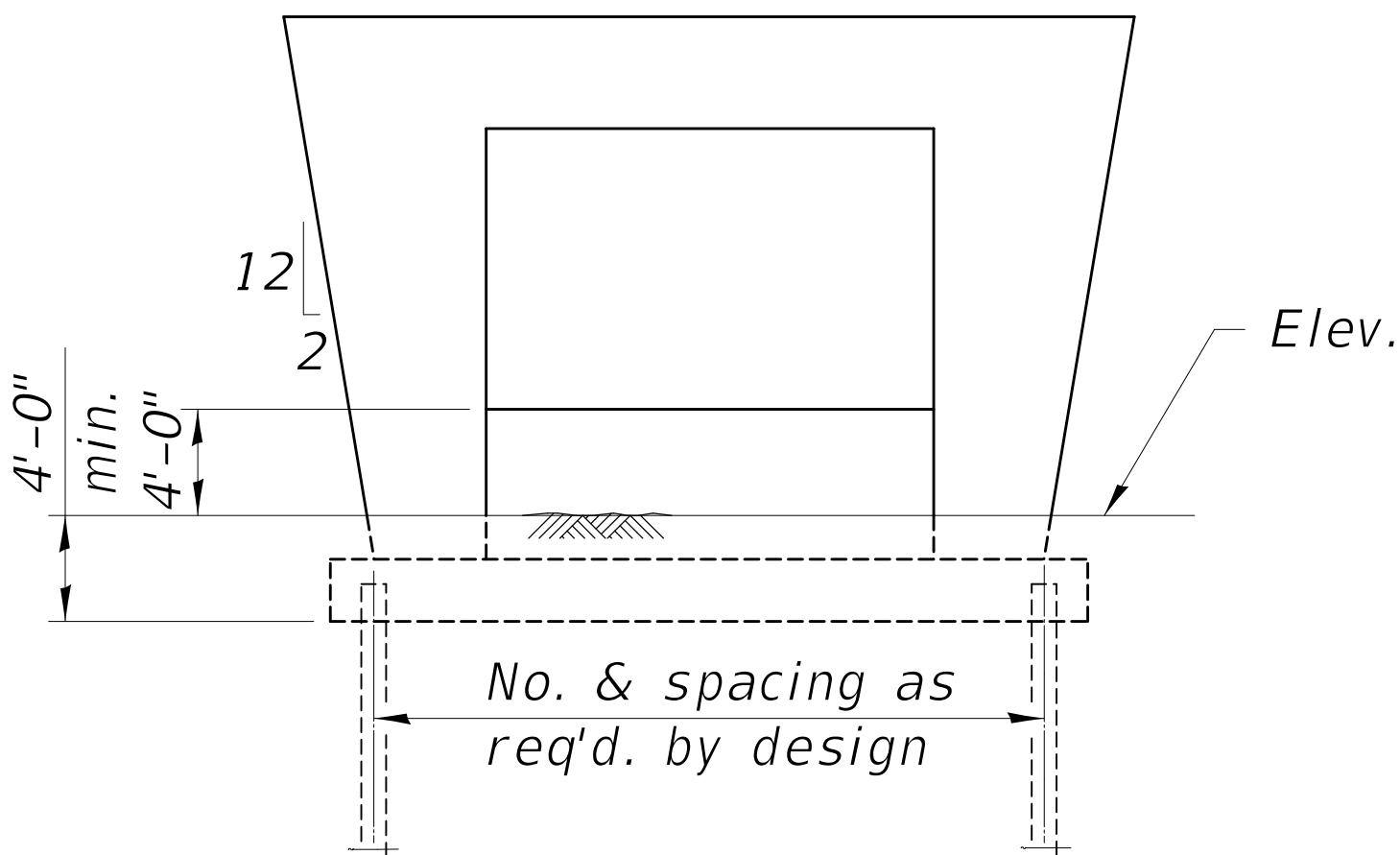
PIER SKETCH

Cell Name: P00089  
Descrip: Solid hammerhead pier sketch



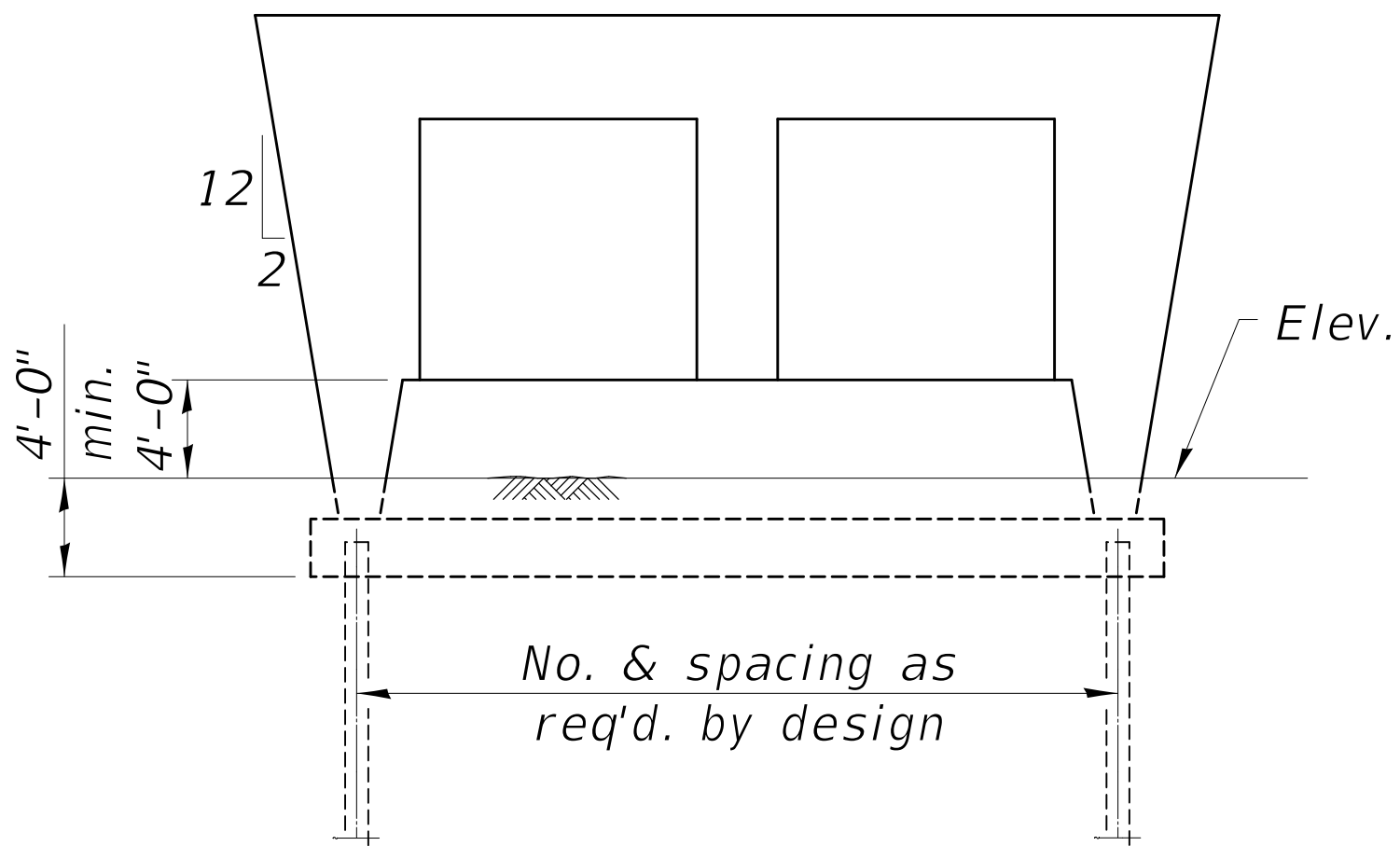
PIER SKETCH

Cell Name: P00090  
Descrip: 2 column trapezoidal pier with spread footing sketch



PIER SKETCH

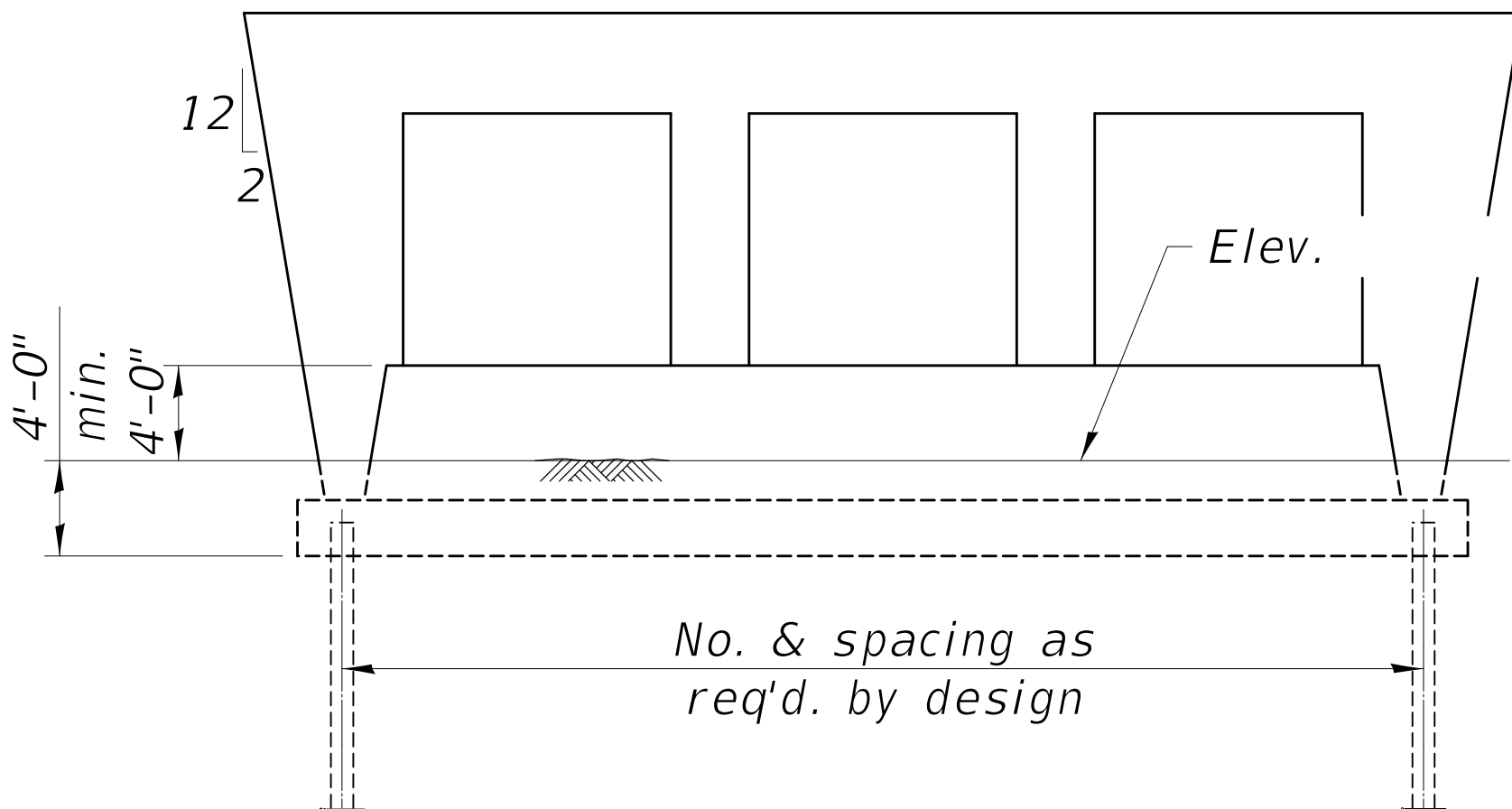
Cell Name: P00091  
Descrip: 3 column trapezoidal pier with spread footing sketch



PIER SKETCH

Cell Name: P00092

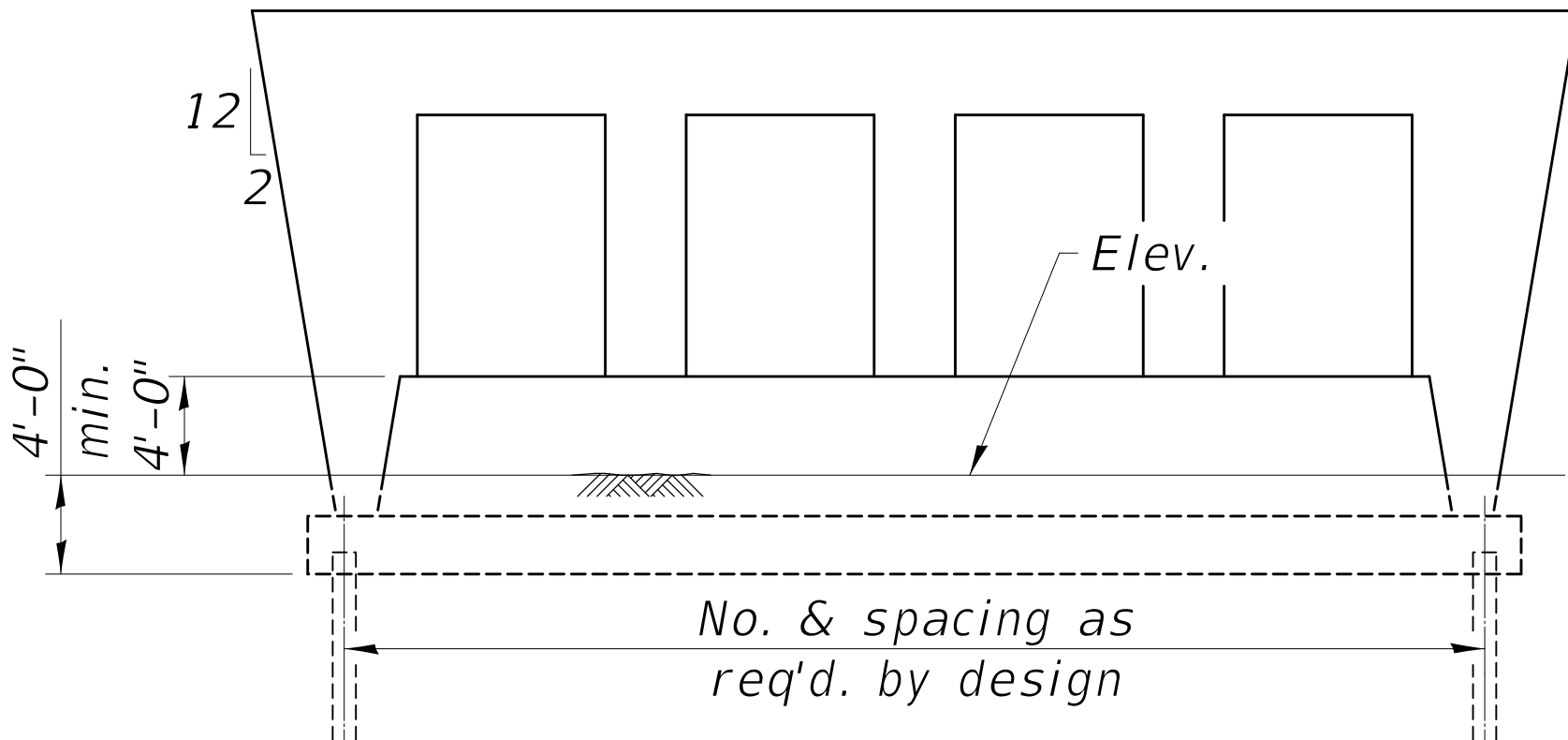
Descrip: 4 column trapezoidal pier with spread footing sketch



PIER SKETCH

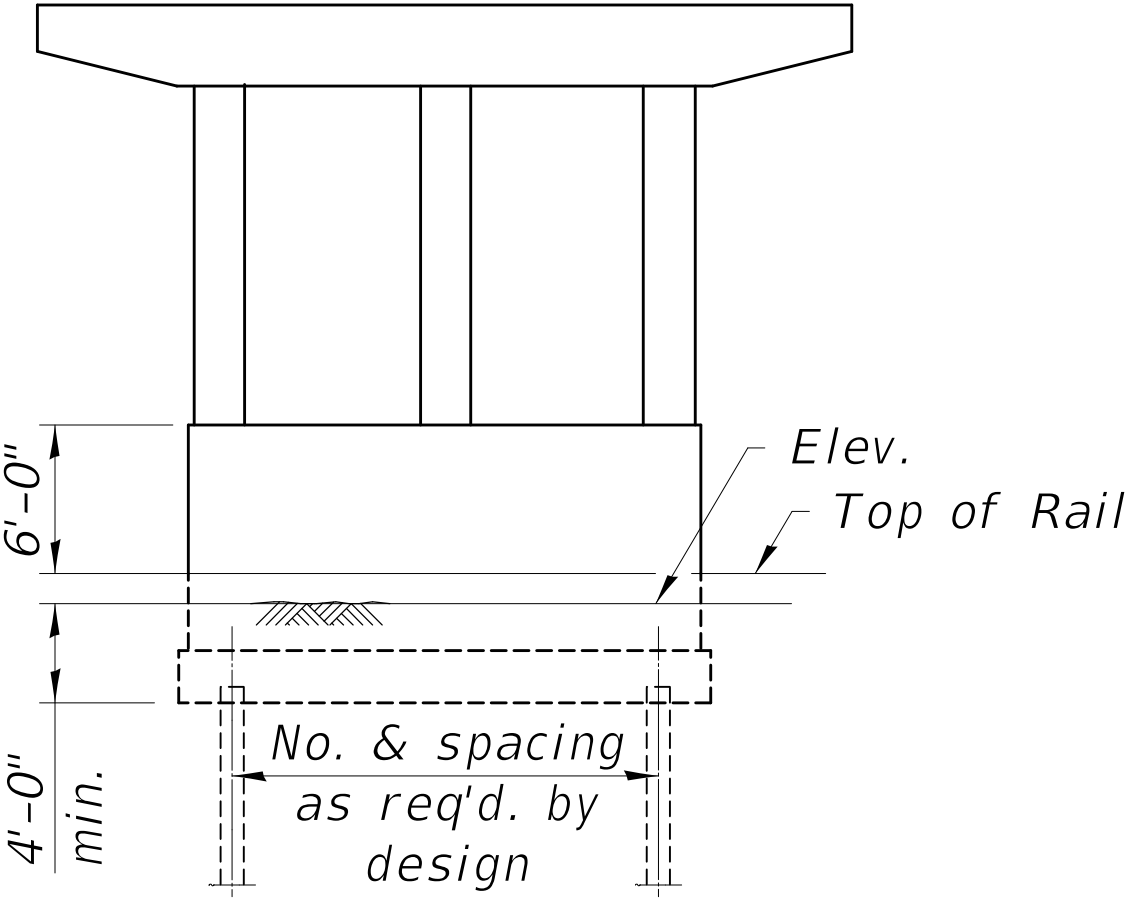
Cell Name: P00093

Descrip: 5 column trapezoidal pier with spread footing sketch



PIER SKETCH

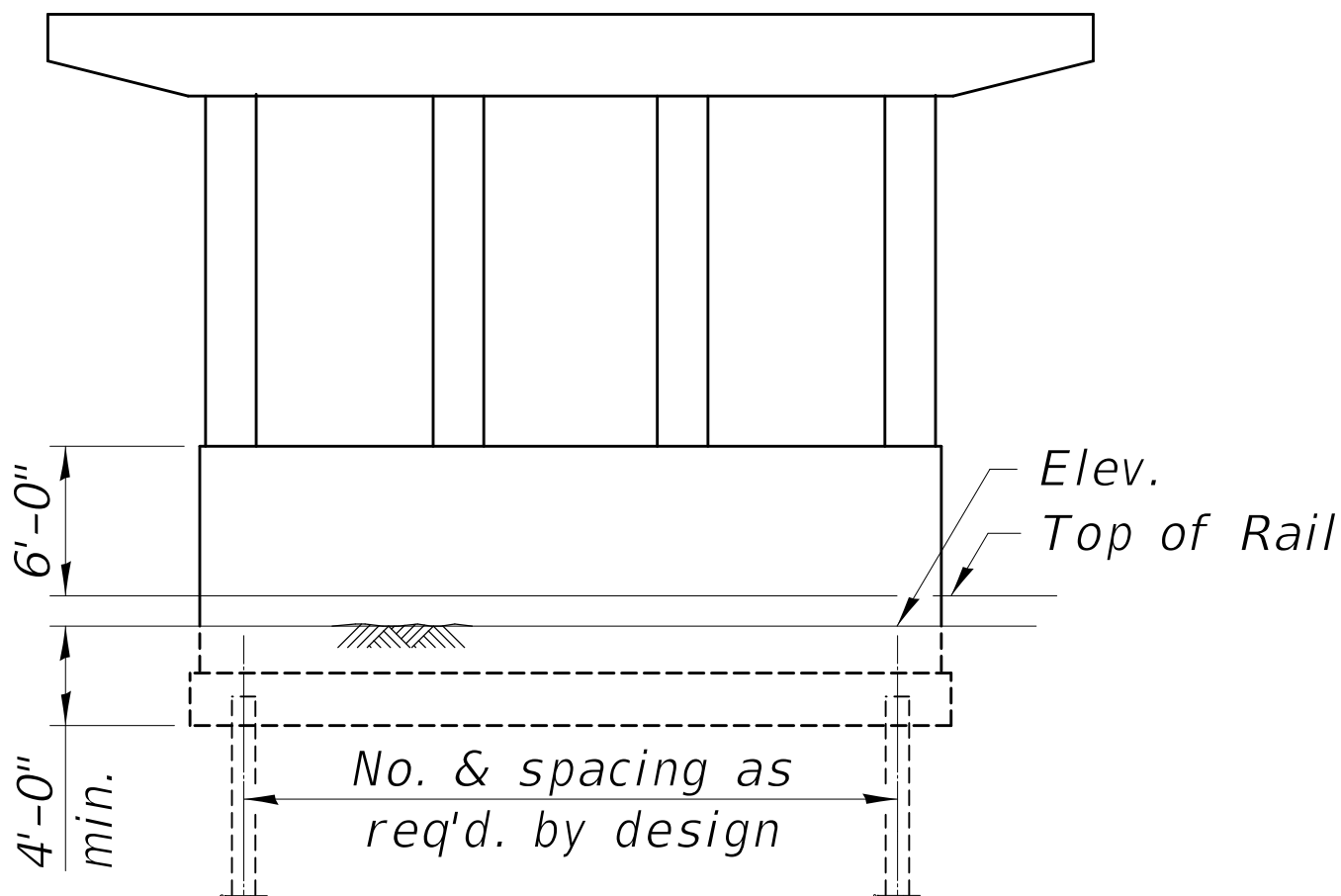
Cell Name: P00094  
Descrip: 2 bay railroad pier with round columns sketch



PIER SKETCH

Cell Name: P00095

Descrip: 3 bay railroad pier with round columns sketch

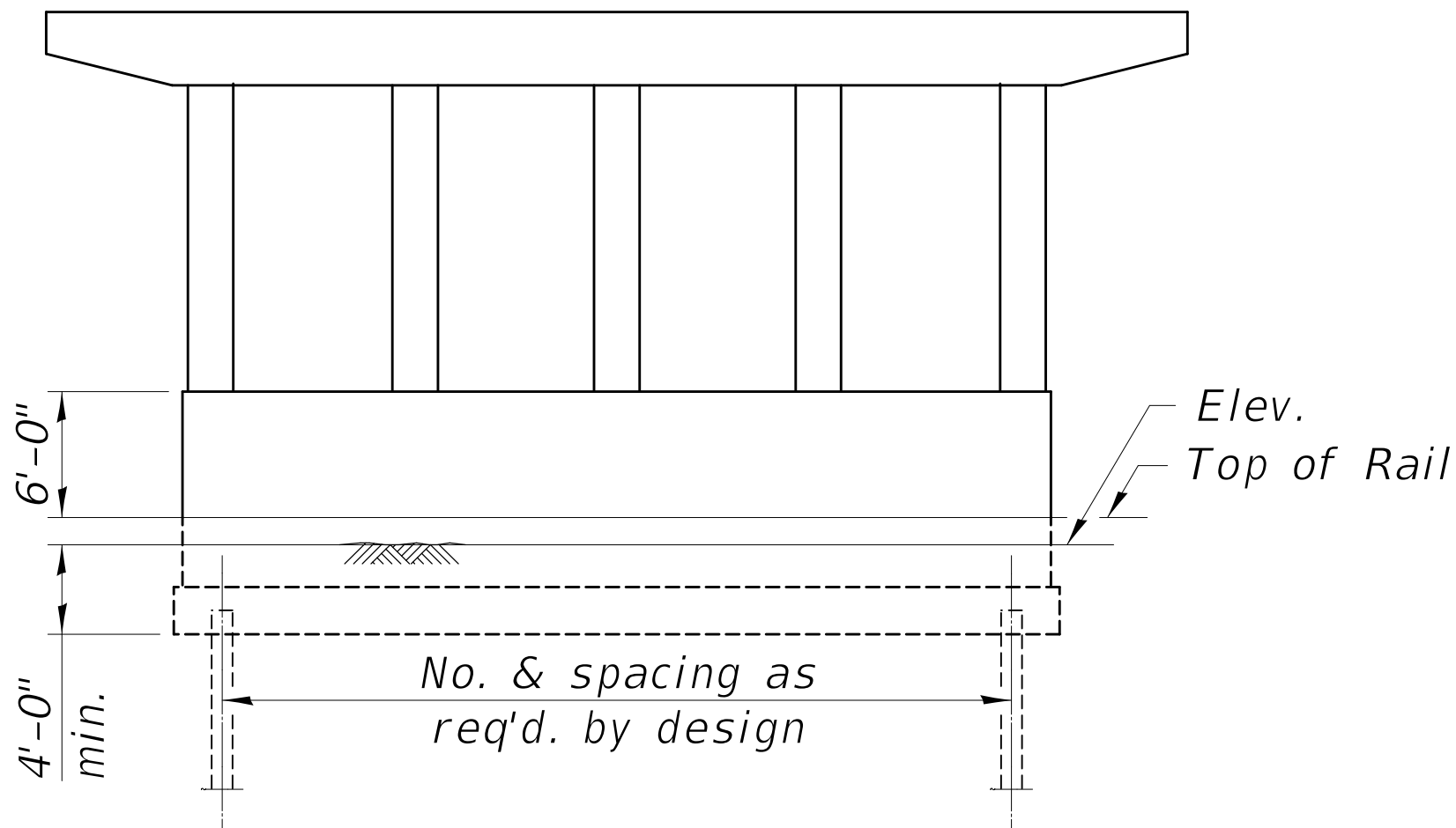


PIER SKETCH



Cell Name: P00096

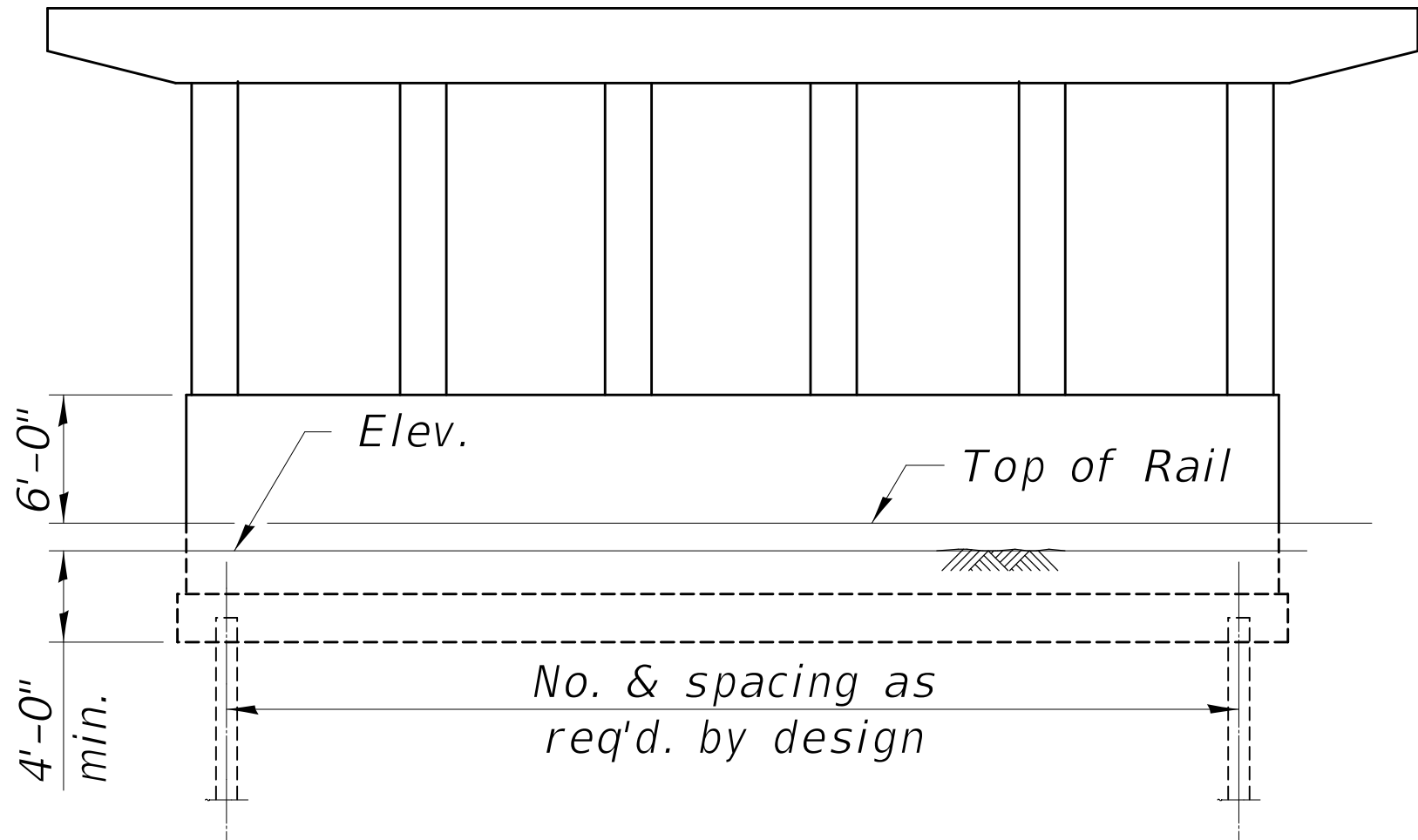
Descrip: 4 bay railroad pier with round columns, modified, sketch



PIER SKETCH

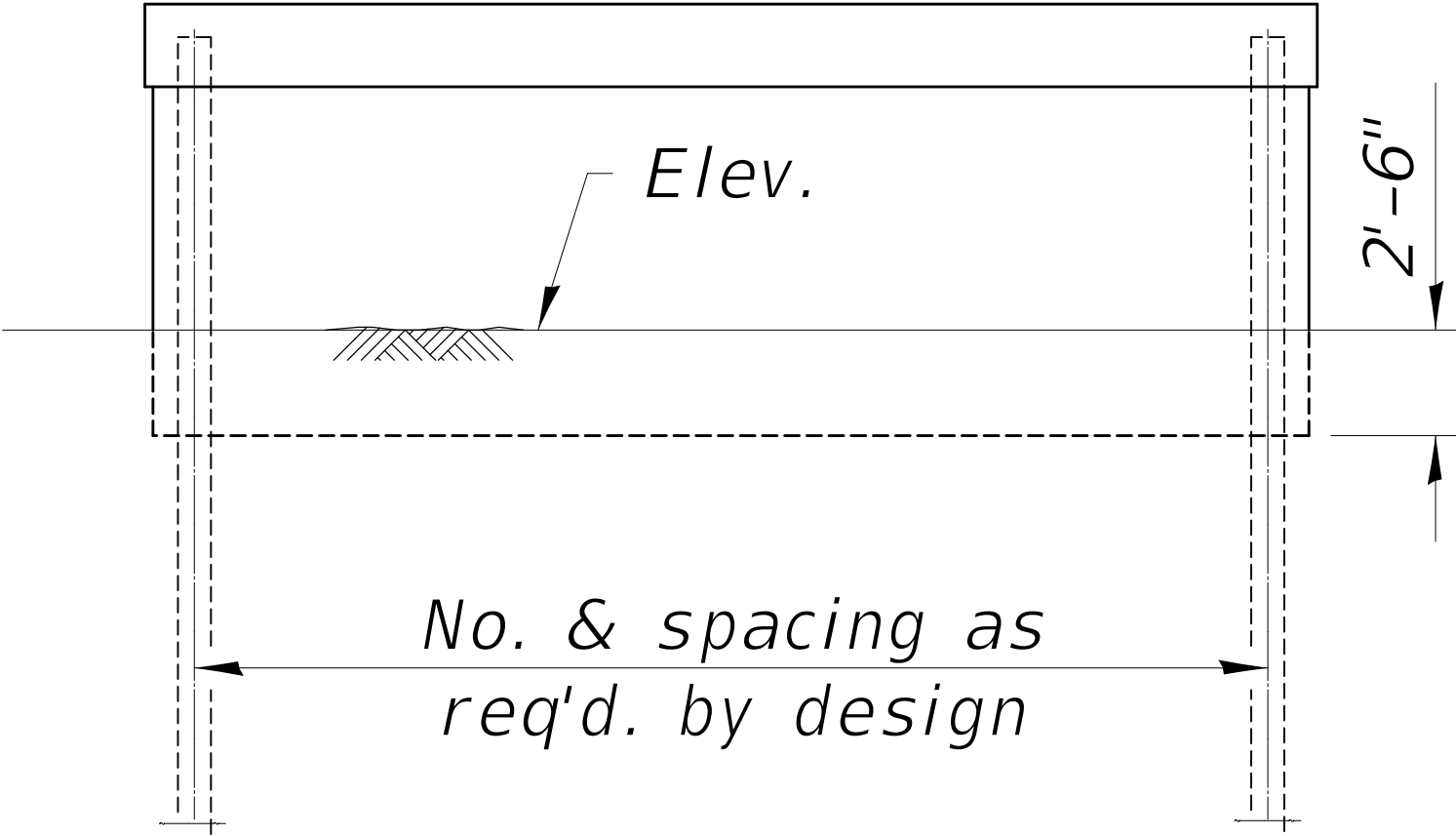
Cell Name: P00097

Descrip: 5 bay railroad pier with round columns sketch



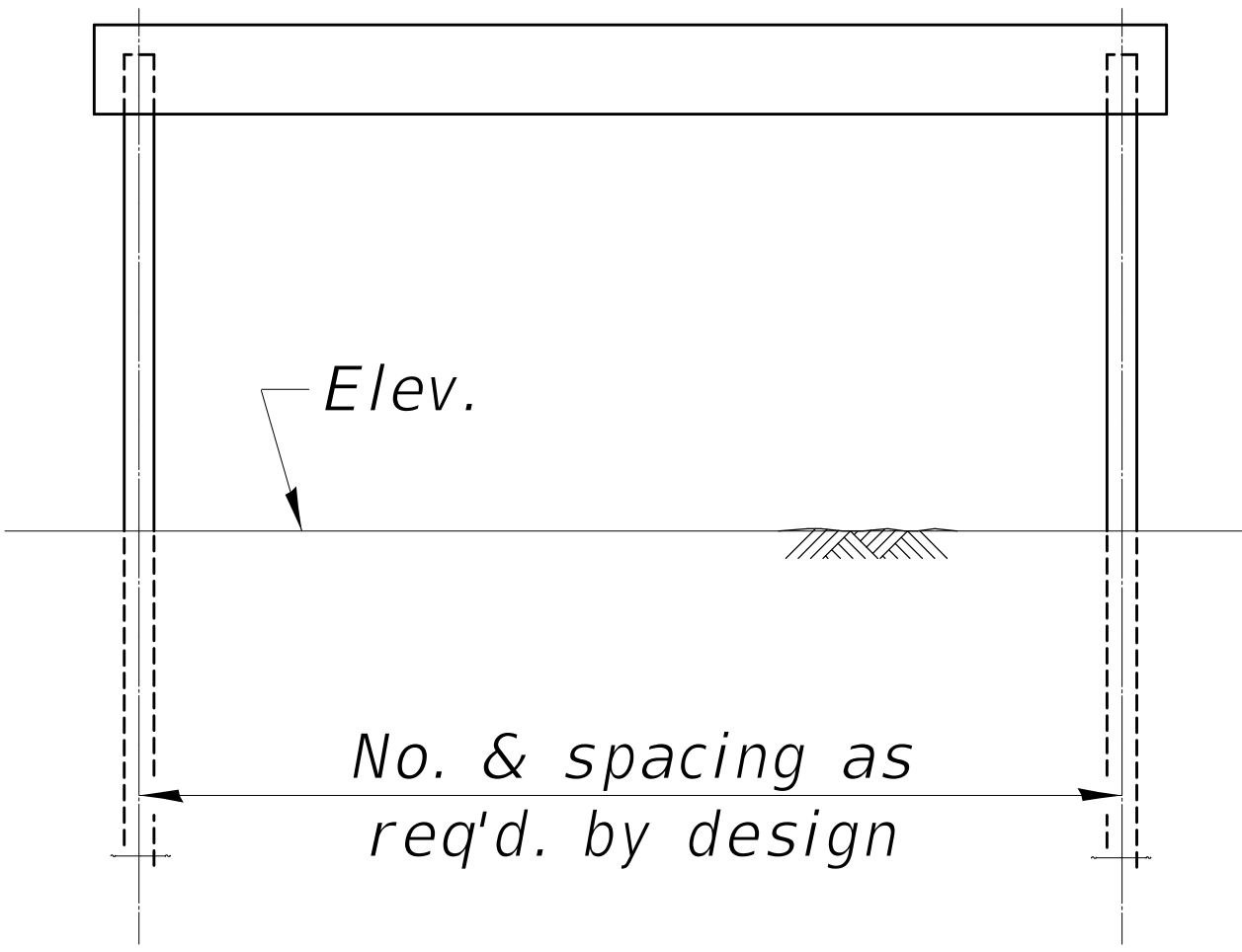
PIER SKETCH

Cell Name: P00098  
Descrip: Encased pile bent pier sketch



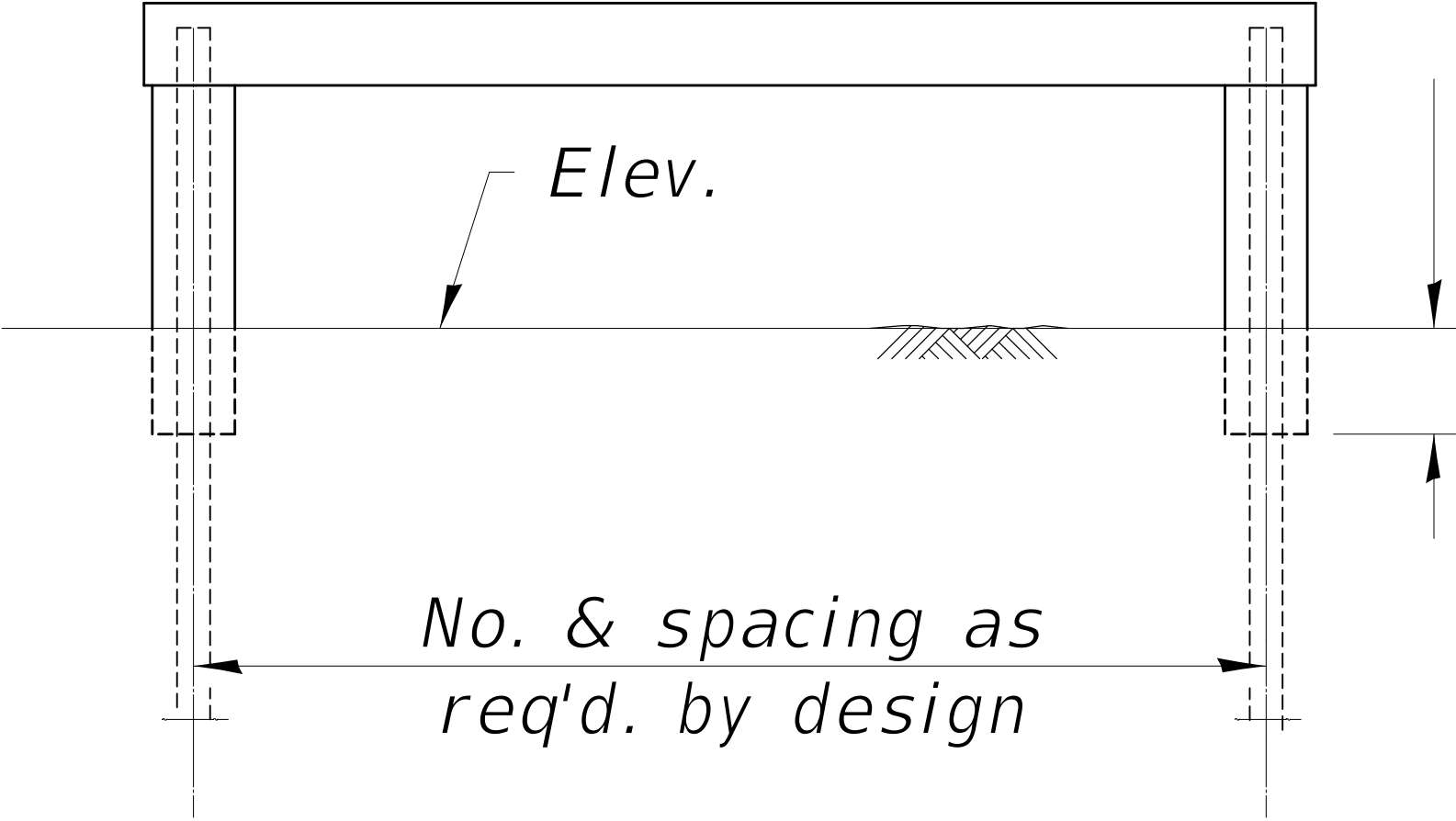
PIER SKETCH

Cell Name: P00099  
Descrip: Pile bent pier sketch



PIER SKETCH

Cell Name: P00100  
Descrip: Individually encased pile bent pier sketch



PIER SKETCH

*Descrip: Safety walk and parapet removal details*

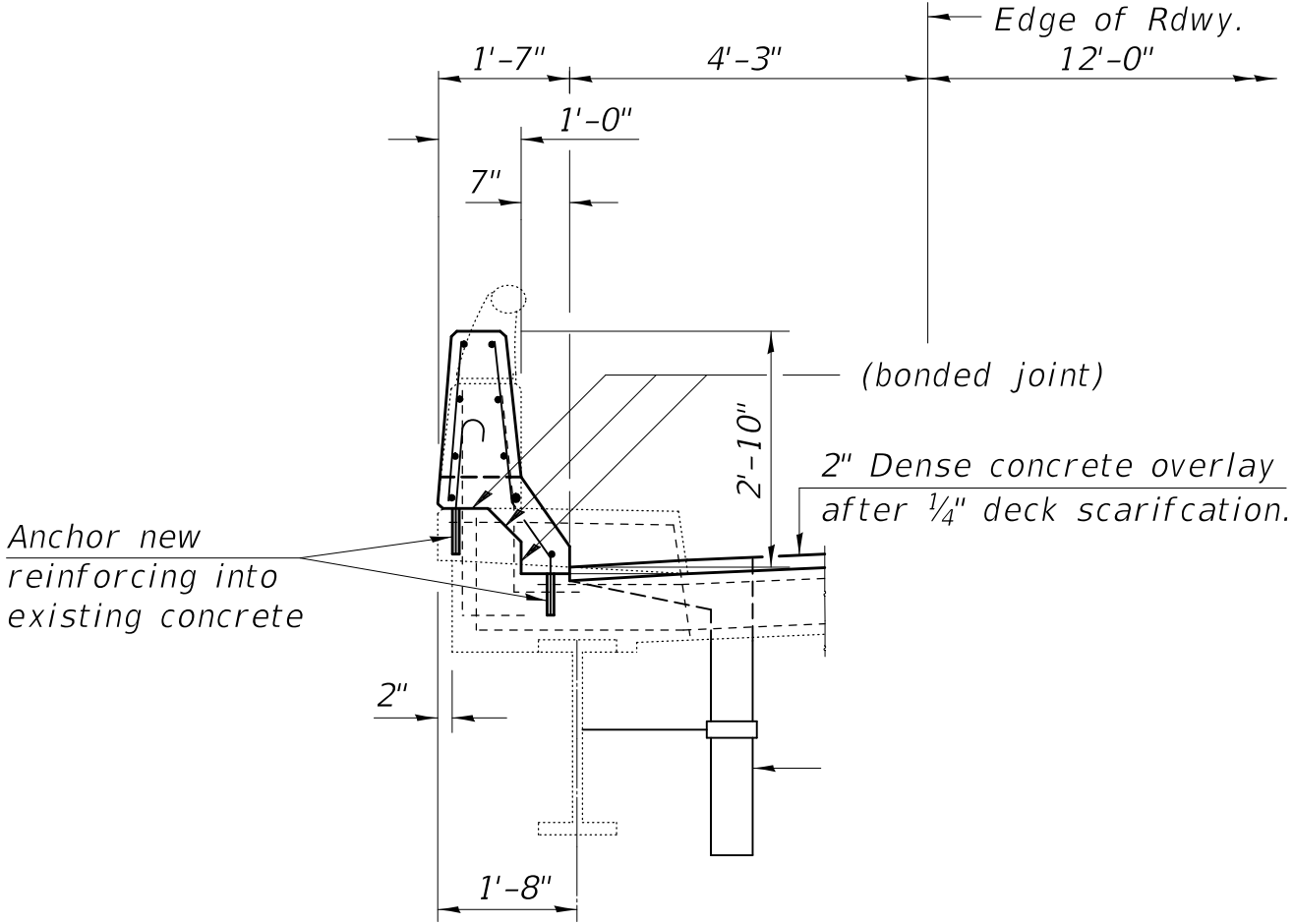


### Parapet & Safety Walk Removal Sequence

- ### Notes to Designer

1. Bill retrofit as "Concrete Parapet & Safety Walk Removal and Retrofit." in Linear Feet.
2. Concrete removal for drain replacement should be billed as Concrete Removal and Class X Concrete.

Cell Name: P00111  
Descrip: Parapet retrofit detail



PARAPET RETROFIT DETAIL